

Landfill Facility Compliance Study

*Checklist of Pertinent
Environmental Regulatory
Requirements*

April 2002

S T A T E O F C A L I F O R N I A

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The information contained herein is based on an interpretation by the contractor of the solid waste laws and regulations. This document is not to be used as a substitute for any statutes, regulations, or ordinances. The statements and conclusions of this report are those of the contractor and not necessarily those of the Integrated Waste Management Board, its employees, or the State of California. The State makes no warranty, expressed or implied, and assumes no liability for the information contained in the succeeding text. Any mention of commercial products or processes shall not be construed as an endorsement of such products or processes.

1 Introduction

This report presents the results of work completed under Task 1 of the Landfill Facility Compliance Study, California Integrated Waste Management Board (CIWMB) Contract Number IWM-C9047. In accordance with the scope of work for this task, a checklist of select environmental regulations pertinent to performance of municipal solid waste (MSW) landfills was developed. There are many other regulatory requirements and policies beyond what are stated in this summary report that pertain to MSW landfills. This report does not address landfill-related requirements of the Water Code or Public Resources Code, certain State Water Resources Control Board (SWRCB) policies, basin plans, site specific waste discharge requirements and other site-specific permit conditions, memoranda of understanding (MOU), worker safety requirements, and labor regulations, among others. The reader may wish to consult with site operators and regulators to obtain a more comprehensive list of requirements.

The list of regulations identified in this task is presented in Section 2. Discussions of the federal regulations are presented in Section 3. Discussions of State of California regulations are presented in Section 4. Discussions of local regulations and requirements are presented in Section 5. Section 5 also includes air quality management district/air pollutions control district (AQMD/APCD), regulations.

A summary of the federal regulations pertaining to MSW landfills (except those related to air quality) is included in Appendix A. A summary of AQMD/APCD air quality regulations is included in Appendix B. A summary of the State of California regulations pertaining to MSW landfills is included in Appendix C. A summary of city and county conditional use permit requirements pertaining to MSW landfills is included in Appendix D. A list of abbreviations and symbols used in this report is in Appendix E.

2 List of Regulations

2.1 Introduction

Consistent with the scope of Task 1, GeoSyntec reviewed federal, State of California, and, where available, local environmental regulations pertaining to MSW landfills. The following key regulations were identified at different levels. Summaries of the key regulations are presented in the remaining sections of the report.

2.2 Federal Regulations Reviewed

The following federal regulations were reviewed:

- 258 (“Criteria for Municipal Solid Waste Landfills”) of Title 40 of the *Code of Federal Regulations* (CFR).
- Part 136 (“Guidelines Establishing Test Procedures for the Analysis of Pollutants”) of Title 40 of the CFR.
- Part 445 (“Landfills Point Source Category”) of Title 40 of the CFR.
- Subpart 60 Cc (“Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills”) of Title 40 of the CFR.

- Subpart 60 GG (“Standards of Performance for Stationary Gas Turbines”) and Subpart 60 WWW (“Standards of Performance for Municipal Solid Waste Landfills”) of Title 40 of the CFR.
- Subpart 63 AAAA (“National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills”) of Title 40 of the CFR (these are proposed regulations that may be finalized in 2002).
- Part 51.165 (“Review of New Sources and Modifications”) and Part 52.21 (“Prevention of Significant Deterioration”) of Title 40 of the CFR.
- “Final Modification of the National Pollutant Discharge Elimination System (NPDES) Stormwater Multi-Sector General Permit for Industrial Activities” (Federal Register, Volume 63, Part VII, 30 September 1998).

2.3 State of California Regulations Reviewed

The following California regulations were reviewed:

- Title 27 (“Environmental Protection”) of the *California Code of Regulations* (CCR).
- Resolution Number 93-62 (“Policy for Regulation of Discharges of Municipal Solid Waste”)—State Water Resources Control Board (SWRCB).
- Order Number 97-03-DWQ (“National Pollution Discharge Elimination System General Permit No. CAS 000001”)—SWRCB.
- Title 14, Section 15000 et seq. (California Environmental Quality Act guidelines) of the CCR.

2.4 Local Regulations and Requirements Reviewed

The following local regulations and requirements were reviewed:

- Air quality regulations related to MSW landfills for 35 California AQMDs/APCDs.
- Available California county and city codes, ordinances, and regulations.
- A sample of conditional use permit requirements (CUPs).

3 Summary of Federal Regulations

3.1 *Introduction*

The federal regulations related to MSW landfills are contained in different parts and subparts of Title 40 of the CFR. In addition, there are separate regulations related to air quality and discharge of stormwater that apply to MSW landfills. The various federal regulations pertaining to MSW landfills are discussed in the following sections and summarized in Appendix A.

3.2 *Part 258—Criteria for Municipal Solid Waste Landfills*

Federal regulations related to MSW landfill siting, construction, operations, closure, post-closure, groundwater monitoring, and inspection of MSW landfills, are included in Part 258 of Title 40 of the CFR (also known as Subtitle D of the Resource Conservation and Recovery Act [RCRA]). The majority of these regulations were promulgated on 9 October 1991. These regulations are summarized in Table 1 of Appendix A.

Part 258 has the following subparts:

- Subpart A—General
- Subpart B—Location Restrictions
- Subpart C—Operating Criteria
- Subpart D—Design Criteria
- Subpart E—Ground-Water Monitoring and Corrective Action
- Subpart F—Closure and Post-Closure Care
- Subpart G—Financial Assurance Criteria

3.3 *Part 136—Test Procedures for the Analysis of Pollutants*

Federal regulations related to test procedures for the analysis of pollutants under “Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category” are presented in Part 136 of Title 40 of the CFR. A summary of the regulations is presented in Table 2 of Appendix A.

Part 136 has the following subparts:

- Method 625—Base/Neutrals and Acids.
- Method 1625, Revision B—Semivolatile Organic Compounds by Isotope Dilution GC/MS.

3.4 *Part 445—Landfills Point Source Category*

Federal regulations related to the MSW landfills point source category under “Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category” are presented in Part 445 of Title 40 of the CFR. A summary of the regulations is presented in Table 2 of Appendix A.

Part 445 has the following subparts:

- Subpart A—RCRA Subtitle C Hazardous Waste Landfill.
- Subpart B—RCRA Subtitle D Non-Hazardous Waste Landfill.

3.5 Subpart 60 Cc—Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

Subpart 60Cc contains emissions guidelines and compliance times for the control of certain designated pollutants from certain designated MSW landfills in accordance with Section 111 (d) of the Clean Air Act and Subpart B of Part 60 (“Adoption and Submittal of State Plans for Designated Facilities”).

3.6 Subpart 60 GG—Standards of Performance for Stationary Gas Turbines and Subpart 60 WWW—Standards of Performance for Municipal Solid Waste Landfills

Subpart 60 GG and Subpart 60 WWW of Title 40 of the CFR are prohibitory/source-specific regulations related to air quality that apply to MSW landfills. These regulations include emission control, emission limits, monitoring, testing, record keeping, and reporting requirements.

While many local AQMDs and APCDs within California have been delegated the responsibility for enforcing federal regulations, the U.S. Environmental Protection Agency (USEPA) has the ultimate responsibility for the implementation and enforcement of the federal air quality regulations. It is possible for a particular piece of equipment to trigger both prohibitory/source-specific and permitting regulations on both federal and local (AQMD and APCD) levels.

3.7 Subpart 63 AAAA—Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After 30 August 1999 or for Which Modification or Reconstruction is Commenced After 6 June 2001

Subpart AAAA establishes new source performance standards for new small municipal waste combustion units. This subpart took effect 6 June 2001. Some of the requirements in this subpart apply to municipal waste combustion unit planning and must be completed before construction is commenced on the municipal waste combustion unit. In particular, the pre-construction requirements in Section 60.1050 through 60.1150 must be completed prior to commencing construction. Other requirements (such as the emission limits) apply when the municipal waste combustion unit begins operation.

3.8 Part 51.165—Review of New Sources and Modifications and Part 52.21—Prevention of Significant Deterioration

Part 51.165 and Part 52.21 of Title 40 of the CFR are permitting regulations related to air quality that can apply to MSW landfills. These permitting requirements include requirements for the installation of Best Available Control Technology (BACT), ambient monitoring, and air dispersion modeling

While many local AQMDs and APCDs within California have been delegated the responsibility for enforcing federal regulations, the USEPA has the ultimate responsibility for the implementation and enforcement of the federal air quality regulations. It is possible for a

particular piece of equipment to trigger both prohibitory/source-specific and permitting regulations on both federal and local (AQMD and APCD) levels.

3.9 *Final Modification of the National Pollutant Discharge Elimination System (NPDES) Stormwater Multi-Sector General Permit (MSGP) for Industrial Activities* ***(Federal Register, Volume 63, No. 189, 30 September 1998, Part VII—USEPA)***

The U.S. Environmental Protection Agency (USEPA) has modified the multi-sector general permit (MSGP) to authorize stormwater discharges from previously excluded facilities so that they may be covered by the MSGP after expiration of USEPA's baseline industrial general permit. Included as part of this modified MSGP is Sector L; "Landfills and Land Application Sites." This regulation includes monitoring and reporting requirements and baseline permit requirements. A summary of Sector L of the modified MSGP for industrial activities is in Appendix A.

4 Summary of State of California Regulations

4.1 *Introduction*

The State of California regulations related to MSW landfills are contained in different sections of Title 27 of the CCR. In addition, there are supplemental regulations promulgated by the SWRCB. The State regulations pertaining to MSW landfills are discussed in the following sections and summarized in Appendix C. In addition, CEQA requirements, which also apply to MSW landfill permitting, are discussed below.

4.2 *Title 27—Environmental Protection*

Title 27 of the CCR covers regulations related to MSW landfills. The regulations included in Title 27 include those of the CIWMB and the SWRCB. The scope of Title 27 includes waste classification, siting, construction standards, water quality monitoring and response program, operating criteria, daily and intermediate cover, handling and equipment, controls, gas monitoring and control, closure and post-closure maintenance standards, and financial assurances. A summary of the Title 27 regulations is in Table 18 of Appendix C.

4.3 *Resolution Number 93-62—Policy for Regulation of Discharges of Municipal Solid Waste*

This resolution, adopted by the SWRCB on 17 June 1993, required all California RWQCBs to revise the waste discharge requirements (WDR) of all dischargers owning or operating MSW landfills that had received solid waste after 9 October 1991, to bring such WDRs to full compliance both with the SWRCB's regulations governing discharges of waste to land and with federal MSW regulations (i.e., 40 CFR, Part 258, discussed previously). A summary of Resolution No. 93-62 is included in Table 19 of Appendix C. To comply with the SWRCB Resolution No. 93-62, RWQCBs issued region-specific orders applicable to MSW landfills within their jurisdictions.

4.4 *Order Number 97-03-DWQ—National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001*

Inactive or closed landfills, land application sites, and open dumps that have received industrial wastes may be subject to this general permit unless the stormwater discharges from the sites are already regulated by an NPDES permit issued by the appropriate RWQCB. This order also applies to MSW landfills. Facility operators of closed landfills that are regulated by WDRs may be required to comply with this general permit. A summary of the general permit conditions is included in Table 20 of Appendix C.

4.5 *Title 14, Section 15000 et seq. (California Environmental Quality Act guidelines)*

The California Environmental Quality Act (CEQA) of 1970, as amended, contained in Section 21000 et seq. of the Public Resources Code and its implementing State CEQA Guidelines contained in Section 15000 et seq. of Title 14 of the California Code of Regulations, require the consideration of environmental impacts when approving projects and prior to the issuance of any governmental agency permits or approvals. Siting, construction, expansion, closure, and some changes to operation and maintenance of an MSW landfill fall within the definition of a project

under CEQA. Requirements imposed upon the project as a result of the CEQA review process are typically incorporated in conditional use permits (CUP) issued by a city or county, solid waste facilities permits (SWFP) issued by the enforcement agency (EA) and concurred in by the CIWMB, mitigation monitoring and reporting programs (MMRP) established by the EA, and construction documents (drawings, specifications, and quality assurance plans) that are reviewed and approved by the EA or the RWQCB.

In general, CEQA requires a preliminary review to determine whether the project is exempt from the CEQA provisions. If the project is deemed not to be exempt, CEQA requires the preparation of an initial study to determine whether there are potentially significant environmental impacts associated with the project. The initial study is followed by the preparation of either a negative declaration (ND), a mitigated negative declaration (MND), or an environmental impact report (EIR).

An ND or MND may be prepared when the initial study determines that the environmental impacts evaluated in the initial study have no impact to the environment, are less than significant, or are reduced to a level of insignificance with mitigation measures. An ND will conclude that the implementation of the project will not result in significant negative impacts to the environment. An MND, a variation of the ND, will also conclude that the implementation of the project will not result in significant negative impacts to the environment. However, this conclusion is reached by creating mitigation measures that avoid or reduce the impact to the environment and/or redesigning the project in such a manner to avoid or reduce the impacts.

If the initial study determines that the project contains impacts that may be potentially significant, preparation of an EIR is required. An EIR represents a more thorough and complete analysis of the potential impacts, evaluates alternatives to the project, and, similar to an MND, creates mitigation measures to avoid or reduce impacts. EIRs are generally required for siting new landfills and significant expansions of existing landfills. However, depending on the scope of the expansion and if an earlier EIR was prepared, an expansion may only require the preparation of a supplemental EIR, an MND, or an ND.

The lead agency for preparation and approval of CEQA documents is generally the agency that is first to approve the project or has the majority of responsibility in approving or carrying out the project. Typically, this is either a city council or county board of supervisors.

5 Summary of Local Regulations and Requirements

5.1 Introduction

There are three categories of local regulations related to MSW landfills:

- Regulations of the AQMDs/APCDs, discussed in Section 5.2 and included in Appendix B.
- Regulations and ordinances promulgated at the county, city, or other local levels discussed in Section 5.3.
- Locally established requirements contained within the conditional use permit (CUP), discussed in Section 5.4.

5.2 Regulations of AQMDs/APCDs

There are 35 AQMDs or APCDs in California. Districts can be comprised of one county, such as the Shasta County Air Quality Management District, or of several counties (or portions of counties), such as the Bay Area Air Quality Management District (BAAQMD). Each district is responsible for developing and enforcing air quality regulations within its region. The AQMD/APCD regulations are classified as either prohibitory/source-specific or permitting regulations. Prohibitory/source-specific regulations can apply to either a particular type of equipment or to a particular pollutant. Prohibitory/source-specific regulations also apply to all gas turbines above a certain size that were installed after 1978. Permitting regulations may apply to many types of sources of air pollution, including combustion equipment and hydrocarbon sources. The requirements of a permitting regulation are triggered either by a proposed modification to an existing piece of equipment or the proposed installation of new equipment.

In addition to the AQMD/APCD regulations, there are federal air quality regulations, discussed previously. While many districts have been delegated the responsibility for enforcing federal regulations, the USEPA has the ultimate responsibility for the implementation and enforcement of the federal air quality regulations. It is possible for a particular piece of equipment to trigger both district and federal prohibitory/source-specific and permitting regulations.

Details regarding the air quality regulations pertaining to MSW landfills are presented in Appendix B. Table 4 of Appendix B presents a list of California AQMDs/APCDs and the counties within the jurisdictions of each district. Table 5 lists the air quality regulation categories applicable to MSW landfill operations. Table 6 provides a summary of AQMD/APCD regulations applicable to MSW landfills for each of the 35 districts within California.

During the review of the air quality regulations of the different AQMDs/APCDs, it was found that each of the 35 districts in California has several types of air quality regulations applicable to MSW landfills. These regulations include fugitive dust, opacity, fuel, combustion, engine, landfill, and permitting rules. Each type of rule includes a combination of emission limits, testing, monitoring, reporting, and emission control requirements. Depending on the rule, these requirements are triggered by one or more of the following: date of installation/construction, emission level, and/or maximum rated capacity of the equipment or throughput of the facility.

Therefore, a summary of a single rule's requirements would need to include each of the specific rule requirements and the corresponding trigger levels. It was recognized that a list of trigger

levels for all the rules for all 35 AQMDs and APCDs would involve a considerable volume of documentation.

Consequently, in order to provide a comprehensive set of requirements that represents the range of applicable air quality regulations within the state, it was decided (with the approval of the CIWMB) to summarize the regulations for two examples of each type of rule. The two examples selected for this purpose include one urban district and one rural district. The urban district selected for this purpose was the South Coast AQMD, which is classified by the government as a non-attainment district for ozone. The rural district selected was the Shasta County AQMD, which is classified as an attainment district for ozone.

Table 7 of Appendix B presents the air rules applicable to landfills within these two AQMDs, including the corresponding trigger levels. The rules applicable to MSW landfills listed in the table include those for landfill regulations, internal combustion reciprocating engines, gas turbines, combustion contaminants, gaseous fuels, fugitive dust, permitting, new source review, prevention of significant deterioration, visible emissions, and nuisance.

5.3 Available California County and City Codes, Ordinances, and Regulations

At the county and city level, GeoSyntec attempted to obtain and review pertinent codes, regulations, and ordinances that would consider site-specific conditions, such as those addressed in CEQA or local land use permits, relevant to understanding environmental performance of MSW landfills.

To identify and obtain copies of these documents, a project team member attempted to complete telephone contacts with representatives of each local EA. These regulators were requested to identify codes, regulations, and ordinances related to MSW landfills issued at the county and, if applicable, city levels within their jurisdiction. If the EA stated that such codes, regulations, and ordinances existed, the project team member requested a copy of those documents for further review and assessment.

There are a total of 61 EAs in California (56 CIWMB-certified local EAs and 5 represented by the CIWMB). Responses were received from 50 of the EAs. Generally, the majority of the EAs indicated that their counties or cities are required to follow the State regulations with respect to MSW landfill siting, construction, operation, closure, post-closure maintenance, and inspection requirements. Several EAs responded by providing codes, regulations, and ordinances for the following jurisdictions: City of Alturas, Calaveras County, City of Fortuna, Lassen County, Los Angeles County, Modoc County, Nevada County, Plumas County, City of Portola, City of Rio Dell, San Luis Obispo County, Santa Clara County, Sierra County, Siskiyou County, City of Susanville, City of West Covina, and Ventura County.

Even though the responding EAs identified the codes, regulations, and ordinances as applicable to MSW landfill issues, GeoSyntec's review indicates that in many instances the cited regulations are not applicable to landfills. Of the codes, regulations, and ordinances received from the EAs, the most relevant information is included in the San Luis Obispo County Code (Chapter 8.12, "Solid Waste Management"), dated March 1993. Section 8.12.600 (Solid Waste Facilities) of the code contains the following requirements:

- "A permit shall be required to operate a solid waste facility..." (Section 8.12.610, "Permit – Required").

- “Solid waste facility permits... are required to be reviewed by the Local Enforcement Agency every five years...” (Section 8.12.620, “Permit – Term”).
- “Solid waste facility... within the County shall be maintained in compliance with the State Minimum Standards for Solid Waste Handling and Disposal, Title 14 California Code of Regulations, commencing with Section 17200. All solid waste facilities shall be subject to inspection by the Local Enforcement Agency...” (Section 8.12.630, “Solid Waste Disposal Facilities”).

The above requirements, however, are almost identical to the California State requirements in Title 27 of the CCR.

In general, specific local regulatory requirements related to the performance of MSW landfills were not found. Typically, such regulations do not exist and, in the few cases where they do exist, they typically refer to the State regulations with respect to landfill siting, construction, operation, closure, post-closure maintenance, and inspection requirements.

5.4 Conditional Use Permits

Often, the most significant forms of local requirements for MSW landfill operation, design, and performance are contained in CUPs specific to each site. Local planning agencies typically issue CUPs for sites on county, city, or private lands (in contrast with federal or tribal lands. Many CUPs contain very specific requirements for owner/operators pertaining to siting, design, operations, traffic, environmental performance, and closure/post-closure of the landfill.

Obtaining a CUP for a new site or expansion is generally the first step in the permitting process. The process of reviewing a CUP application varies somewhat from county to county and may involve the review of many local agencies. Public works, environmental health, flood control, transportation, community development, and planning departments (among others) at the county or city level provide review and help draft conditions for inclusion in the CUP. Additionally, concerns of local citizen action groups and other community interests are generally considered when CUPs are issued.

Given the variability of local geographic, geologic, and political environments across the state, specific conditions of CUPs vary widely. Sites within Los Angeles County, for example, generally have more stringent conditions than sites in some rural counties. Additionally, some aspects of CUPs vary with time as the political environment of a community changes. For example, CUPs issued in recent years tend to have more specific requirements than those issued 20 years ago.

Since there are several hundred active and closed MSW landfills across California, it was impractical to compare all CUPs, given the limited scope of this study. For the purpose of obtaining a general understanding of the CUPs applicable to MSW landfills in different parts of the state, GeoSyntec requested CUPs from 10 landfills from around the state. These landfills were selected because they represent landfills with both private and public owners and cover a relatively wide range in terms of size, capacity, landfill age, and other pertinent features.

After GeoSyntec’s inquiry revealed that three out of the 10 selected landfills did not require a CUP, GeoSyntec obtained and reviewed copies of CUPS for the remaining seven landfills. A summary of the landfill performance requirements contained in the seven CUPs is presented in Tables 21 and 22 of Appendix D.

Appendix A

Summary of Federal Regulations (except air quality)

Table 1: Criteria for Municipal Solid Waste Landfills
(40 CFR Part 258)

| Section | Description |
|--|---|
| Subpart A—General | |
| 258.1 | Purpose, scope, and applicability. Purpose is to establish minimum national criteria under RCRA for all municipal solid waste landfill (MSWLF) units and under the Clean Water Act (CWA), as amended, for MSWLF that are used to dispose of sewage sludge. Applies to owners and operators of new MSWLF units, existing MSWLF units, and lateral expansions, with some exceptions. Inactive landfills that fail to complete cover installation within 1 year are subject to all the requirements of this Part 258 unless otherwise specified. Gives compliance dates in the 1993-1998 range. Some exemptions apply to MSWLF units that dispose of less than 20 tons/day, provided certain conditions are met. If an owner or operator knows that groundwater contamination results from the unit and an exemption has been claimed, the owner or operator shall notify the approved State Director and comply with Subparts D and E of 40 CFR Part 258. |
| 258.2 | Definitions. This section contains definitions for terms that appear throughout Part 258; additional definitions appear in the specific sections to which they apply. Refer to the regulation for specific information. |
| 258.3 | The owner or operator of a MSWLF must comply with any other applicable federal rules, laws, regulations, or other requirements. |
| Subpart B—Location Restrictions | |
| 258.10 | Airport safety. MSWLF units near airports (distances are given) must demonstrate no bird hazard posed to aircraft. |
| 258.11 | Floodplains. MSWLF units in 100-year floodplains must demonstrate no restriction of flow of 100-year flood, no reduction in temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a threat to human health and the environment. Must place the demonstration in the operating record and notify the approved State Director that is has been placed. |
| 258.12 | Wetlands. New MSWLF units and lateral expansions shall not be located in wetlands, unless the owner or operator can make the demonstrations set forth herein. |
| 258.13 | Fault areas. New MSWLF units and lateral expansions shall not be located within 200 feet of a fault that has had displacement in Holocene time unless the owner/operator demonstrates that an alternative setback distance of less than 200 feet will prevent will prevent damage to the structural integrity of the MSWLF unit and will be protective of human health and the environment. |
| 258.14 | Seismic impact zones. New MSWLF units and lateral expansions shall not be located in seismic impact zones, unless the owner/operator demonstrates to the approved State Director that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. Must place the demonstration in the operating record and notify the approved State Director that is has been placed. |
| 258.15 | Unstable areas. Owner/operators of new MSWLF units, existing MSWLF units, and lateral expansions located in an unstable area must demonstrate that engineering measures have been incorporated into the MSWLF unit's design to ensure that the integrity of the structural components of the MSWLF unit will not be disrupted. Factors to consider are included. Must place the demonstration in the operating record and notify the State Director that is has been placed. |
| 258.16 | Closure of existing municipal solid waste landfill units. Existing MSWLF units that cannot make the demonstrations pertaining to airports, floodplains, or unstable areas must close by 9 October 1996, with a 2-year extension possible if they can demonstrate that there is no available alternative disposal capacity and there is no immediate threat to human health and the environment. |

Table 1, continued

| Section | Description |
|-------------------------------------|---|
| Subpart C—Operating Criteria | |
| 258.20 | Procedures for excluding the receipt of hazardous waste. Owner/operators must implement a program for detecting and preventing the disposal of regulated hazardous wastes as defined in 40 CFR Part 261 and PCBs as defined in 40 CFR Part 761. Program to include random inspections of incoming loads, inspection records, training on waste recognition, and notification. |
| 258.21 | Cover material requirements. Owner/operators must cover disposed solid waste with 6 inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging. Alternative materials or an alternative thickness may be approved by the approved State Director. Approved State Director may approve a temporary waiver from cover requirements due to extreme seasonal climatic conditions. Alternative frequencies for cover requirements may be approved for owner/operators of MSWLFs that dispose of 20 tons of MSW per day or less. |
| 258.22 | Disease vector control. Owner/operators must prevent or control on-site populations of disease vectors. |
| 258.23 | Explosive gases control. Owner/operators must ensure that the concentration of methane gas generated by the facility does not exceed 25% LEL for methane in facility structures and does not exceed the lower explosive limit for methane at the facility property boundary. Owner/operators must implement a routine methane monitoring program, the type and frequency to depend on soil, hydrogeologic, and hydraulic conditions and the location of facility structures and property boundaries. The minimum frequency of monitoring shall be quarterly. If methane gas levels exceed allowable levels, owner/operators must take steps to protect human health; within 7 days of detection, record methane gas levels detected and actions taken in operating record; within 60 days of detection, implement a remediation plan for the methane gas releases that includes a description of the nature and extent of the problem and the proposed remedy, and place a copy of the plan in the operating record. The approved State Director may establish alternative schedules for these actions. Alternative frequencies for monitoring requirements may be approved for owner/operators of MSWLFs that dispose of 20 tons of MSW per day or less. |
| 258.24 | Air criteria. Units must not violate applicable requirements developed under a State Implementation Plan (SIP). Open burning of solid waste is prohibited, with some exceptions (e.g., infrequent burning of agricultural wastes, silvicultural waste, etc.) |
| 258.25 | Access requirements. Owner/operators must control public access and prevent unauthorized vehicular traffic and illegal dumping. |
| 258.26 | Run-on/run-off control systems. Owner/operators must design, construct, and maintain a run-on control system to prevent flow into the active portion of the landfill during the peak discharge from a 25-year storm and to collect and control at least the water volume resulting from a 24-hour, 25-year storm. |
| 258.27 | Surface water requirements. MSWLF units shall not cause a discharge of pollutants into waters of the US that violates the CWA, including NPDES requirements, or a non-point source of pollution to waters of the US that violates a management plan. |
| 258.28 | Liquids restrictions. Bulk or noncontainerized liquid waste may not be placed in MSWLF units unless the waste is household waste other than septic waste or the waste is leachate or gas concentrate from the MSWLF unit and if the unit has a composite liner and leachate collection and removal system (LCRS). Containers are not allowed in the MSWLF unit unless the container is small, is designed to hold liquids, or is household waste. |

Table 1, continued

| Section | Description |
|---|---|
| 258.29 | Record-keeping requirements. Records to be retained are listed - location restriction demonstration, inspection records, training procedures, and notification procedures, gas monitoring results, MSWLF design documentation for placement of leachate or gas condensate in a MSWLF unit, information required by Subpart E of 40 CFR Part 258, closure and post-closure care plans and other closure requirements, cost estimates and financial assurance required by subpart G, information demonstrating compliance with small community exemption. Owner/operator must notify the approved State Director when documents have been placed or added to the operating record. |
| Subpart D—Design Criteria | |
| 258.40 | Design criteria. New MSWLF units and lateral expansions shall be constructed: in accordance with a design that ensures that the concentration values listed in Table I of this section will not be exceeded in the uppermost aquifer at the relevant point of compliance as specified by the Director; with a composite liner and a leachate collection system designed and constructed to maintain less than 30 cm depth of leachate over the liner. Composite liner consists of a minimum 30-mil flexible membrane liner overlying a 2-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/s. If HDPE liner is used, it shall be at least 60 mil thick. General design considerations are listed. |
| Subpart E—Groundwater Monitoring and Corrective Action | |
| 258.50 | Applicability. These requirements may be suspended if the owner/operator can demonstrate that there is no potential for migration of hazardous constituents from the MSWLF unit to the uppermost aquifer during the active life or the post-closure care period. Certifications and factors to be considered are listed. Alternative schedules may be set for demonstrating compliance with most of the requirements set forth. |
| 258.51 | Groundwater monitoring systems. Must consist of sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent background groundwater quality and the quality of groundwater passing the relevant point of compliance specified by the approved State Director or at the unit boundary of an unapproved state. Requires wells at relevant point of compliance or at unit boundary. Approved State Director may approve a multiunit groundwater monitoring system depending on several factors. General casing, screening, sealing requirements are given. Owner/operator must notify approved State Director that design, installation, development, and decommission of any monitoring wells, piezometers, etc., documentation have been placed in operating record. General factors affecting number, spacing, and depths of monitoring systems are given. |
| 258.53 | Groundwater sampling and analysis requirements. Must include consistent sampling and analysis procedures to meet objectives. General requirements are given for measuring groundwater elevations, establishing background groundwater quality, five possible statistical methods and relevant performance standards to use in evaluating groundwater monitoring data for each hazardous constituent. |
| 258.54 | Detection monitoring program. Required at MSWLF units at all groundwater monitoring wells for constituents listed in Appendix I of 40 CFR Part 258, with variations if approved based on consideration of several factors. Monitoring frequency shall be at least semiannual during the active life of the facility (including closure) and the post-closure care period. A minimum of four independent samples from each well (background and downgradient) must be collected and analyzed for Appendix I constituents or approved alternative list during first semiannual sampling event. At least one sample per well must be obtained and analyzed during subsequent semiannual sampling events. An alternative frequency of monitoring may be approved but must be no less frequently than annual and based on several site-specific factors. If owner/operator determines there is a statistically significant increase over background of one or more of the constituents listed in Appendix I at any monitoring well at the boundary, then must notify within 14 days and establish an assessment monitoring program within 90 days or demonstrate an alternate source of the contamination. |

Table 1, continued

| Section | Description |
|---------|---|
| 258.55 | <p>Assessment monitoring program. Required whenever a statistically significant increase over background is detected for one or more of the constituents listed in Appendix I. Within 90 days of triggering an assessment monitoring program and annually thereafter, owner/operator must sample and analyze for Appendix II constituents. For any Appendix II constituent detected, a min of four independent samples from each well must be collected and analyzed to establish background for the constituents. The analyte list (list of constituents being evaluated) and monitoring frequency may be modified if approved based on several site-specific factors. After obtaining the results of the initial or subsequent sampling events required, within 14 days must meet notice requirements to identifying Appendix II constituents detected and within 90 days and at least semiannually thereafter, resample all wells and analyze for all Appendix I and those Appendix II constituents detected. At least one sample per well must be collected and analyzed during these sampling events. An alternative frequency may be approved but must be no less than annual. The alternative frequency shall be based on several factors. If the concentrations of all Appendix II constituents are shown to be at or below background values using statistical procedures for two sampling events, the owner/operator must notify the approved State Director of this finding and may return to detection monitoring. If the concentrations of any Appendix II constituents are above background values but below the groundwater standard using statistical procedures, the owner/operator must continue assessment monitoring in accordance with this section. If one or more Appendix II constituents are detected at statistically significant levels above the groundwater protection standard in any sampling event, the owner/operator must within 14 days place notice in the operating record and notify the approved State Director and all appropriate local government officials. Owner/operator must also characterize the nature and extent of the release, install at least one additional well at the facility boundary, notify all persons owning land where contaminants have migrated, and initiate an assessment of corrective measures within 90 days or demonstrate an alternate source of contamination or an error in sampling. Owner/operator must establish a groundwater protection standard for each Appendix II constituent detected in groundwater that is the MCL, background concentration, or an alternative health-based level that satisfies several criteria presented herein.</p> |
| 258.56 | <p>Assessment of corrective measures. Within 90 days of finding that any Appendix II constituents have been detected at a statistically significant level exceeding the groundwater protection standards, the owner/operator must initiate an assessment of corrective measures. General requirements for the assessment are given.</p> |
| 258.57 | <p>Selection of remedy. Based on the results of the corrective measures assessment conducted, the owner/operator must select a remedy that meets standards listed herein. The owner/operator must prepare a report describing the selected remedy and provide notice within 14 days of selecting the remedy. Remedies must be protective of human health and the environment, attain the groundwater protection standard, control the source(s) of releases so as to reduce or eliminate further releases of Appendix II constituents to the environment, and comply with standards for management of wastes. Remedy evaluation and schedule factors are given. The approved State Director may determine that remediation of a release of an Appendix II constituent from a MSWLF is not necessary if the groundwater is already contaminated by a source other than the MSWLF, the affected groundwater is not reasonably expected to be a source of drinking water, groundwater is not hydraulically connected with waters to which the hazardous constituents are migrating, remediation of the release is technically impracticable, or remediation results in unacceptable cross-media impacts.</p> |
| 258.58 | <p>Implementation of corrective action program. Owner/operator must establish and implement a corrective action program that meets the requirements of an assessment monitoring program, indicates the effectiveness of the corrective action remedy, and demonstrates compliance with the groundwater protection standard. Owner/operator must implement the corrective action remedy and take any interim measures necessary to ensure protection of human health and the environment. Factors in considering need for interim measures are given. Owner/operator must implement other methods or techniques if it is determined that requirements are not being achieved through the remedy selected. If owner/operator determines compliance with requirements cannot be achieved practically, must obtain</p> |

Table 1, continued

| Section | Description |
|--|---|
| | certification of impracticability, implement alternate measures to control exposure to humans and the environment, implement alternate measures to control the sources of contamination, and provide notice within 14 days that alternate measures will be implemented. Compliance with the groundwater protection standards has been achieved by demonstrating that concentrations of Appendix II constituents have not exceeded groundwater protection standards for a period of 3 consecutive years using the statistical procedures and performance standards. An alternative length of time may be approved based on several site-specific factors. Upon completion of the remedy, owner/operator must meet notice requirements within 14 days. |
| Subpart F—Closure and Post-Closure Care | |
| 258.60 | Closure criteria. Owner/operators must install a final cover system designed to minimize infiltration and erosion. Must be designed and constructed to: have a permeability less than or equal to the permeability of any bottom liner system or natural subsoil present, or a permeability no greater than 1×10^{-5} cm/s, whichever is less; use an infiltration layer that contains a minimum 18 inches of earthen material, and use an erosion layer that contains a minimum of 6 inches of earthen material capable of sustaining native plant growth. An alternative final cover may be approved that meets the requirements of the layers described above. The approved State Director may establish alternative requirements for the infiltration layer for units that dispose of 20 tons of MSW per day or less based on several factors. Owner/operator must prepare a written closure plan that describes the steps necessary to close all MSWLF units at any point during their active life that includes a description of the final cover, an estimate of the largest area of the MSWLF requiring a final cover, an estimate of the maximum inventory of wastes ever on site over the active life of the unit, and a schedule for completing activities necessary to satisfy closure criteria in 268.60. Owner/operator must begin closure activities of each unit no later than 30 days after the date on which the MSWLF unit receives the known final receipt of wastes or no later than one year after the most recent receipt of wastes. Extensions beyond the one year may be granted based on unit capacity. Owner/operator must complete closure activities of each unit in accordance with the closure plan within 180 days following the beginning of closure. Extensions may be granted if necessity is demonstrated and human health and the environment are protected. Owner/operator must notify approved State Director that closure has been completed. Deed notation is required and guidelines are given. |
| 258.61 | Post-closure care requirements. Post-closure care to be provided for 30 years to maintain the integrity and effectiveness of the final cover, maintain and operate the leachate collection system, monitor the groundwater, maintain and operate the gas collection system. The post-closure period may be increased or decreased by the director if appropriate. Owner/operator must prepare a written post-closure plan that includes a description of the monitoring and maintenance activities required for each unit and the frequency at which those activities will be performed; contact information; a description of planned uses of the property during the post- closure period. Notification and certification requirements are given. |
| Subpart G—Financial Assurance Criteria | |
| 258.70 | Requirements apply to owners and operators of all MSWLF units, except owners or operators who are State or Federal government entities. |
| 258.71 | Financial assurance for closure. Owner or operator must have a detailed written estimate, in current dollars, of cost of hiring a third party to close the largest area of the MSWLF unit ever requiring a final cover plan. Must notify approved State Director that the estimate has been placed in the operating record. Requires annual adjustments for inflation or changes to the closure plan or MSWLF unit conditions, including reduction following notification of the approved State Director; financial assurance for the cost of closure in compliance with Section 258.74; and continuous coverage for closure until released from financial assurance requirements by demonstrating compliance with Section 258.60(h) and (i). |

Table 1, continued

| Section | Description |
|-------------------------|--|
| 258.72 | Financial assurance for post-closure care. Owner or operator must have a detailed written estimate, in current dollars, of cost of hiring a third party to conduct post-closure care for the MSWLF unit in compliance with the post-closure plan developed under Section 258.61. Must notify approved State Director that the estimate has been placed in the operating record. Requires annual adjustments for inflation or changes to the post-closure plan or MSWLF unit conditions, including reduction following notification of the State Director; financial assurance for the cost of post-closure care in compliance with Section 258.74; and continuous coverage for post-closure care until released from financial assurance requirements by demonstrating compliance with Section 258.61(e). |
| 258.73 | Financial assurance for corrective action. Owner or operator must have a detailed written estimate, in current dollars, of cost of hiring a third party to undertake a corrective action program in accordance with the program required under Section 258.58. Must notify approved State Director that the estimate has been placed in the operating record. Requires annual adjustments for inflation or changes to the corrective action plan or MSWLF unit conditions, including reduction following notification of the State Director; financial assurance for the cost of post-closure care in compliance with Section 258.74; and continuous coverage for post-closure care until released from financial assurance requirements by demonstrating compliance with Section 258.58 (f) and (g). |
| 258.74 | Allowable mechanisms. The following financial mechanism options available to meet the costs of closure, post-closure care, and corrective action are described along with conditions for use: trust fund, surety bond guaranteeing payment or performance, letter of credit, insurance, state assumption of responsibility, and use of multiple financial mechanisms. The language of the mechanisms must ensure the amount of funds is sufficient to cover the costs of closure, post-closure care, and corrective action for known releases when needed; ensure that funds will be available in a timely fashion when needed; must be obtained by the owner or operator by the effective date of these requirements or prior to the initial receipt of solid waste for closure and post-closure care and no later than 120 days after the corrective action remedy has been selected in accordance with the requirements of Section 258.58; and must be legally valid, binding, and enforceable under State and Federal law. |
| 258.75 | The approved State Director may allow discounting of closure cost estimates, post-closure cost estimates, and/or corrective action costs up to the rate of return for essentially risk free investments, net of inflation, under the following conditions: (a) The approved State Director determines that cost estimates are complete and accurate and the owner or operator has submitted a statement from a Registered Professional Engineer so stating; (b) The State finds the facility in compliance with applicable and appropriate permit conditions; (c) The approved State Director determines that the closure date is certain and the owner or operator certifies that there are no foreseeable factors that will change the estimate of site life; and (d) Discounted cost estimates must be adjusted annually to reflect inflation and years of remaining life. |
| Appendix I to Part 258 | Constituents for Detection Monitoring |
| Appendix II to Part 258 | List of Hazardous Inorganic and Organic Constituents |

Table 2: Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for Landfills
(Federal Register / Vol. 65, No. 12 , 19 Jan. 2000, Part II—USEPA)

| Section | Description |
|--|--|
| Part 136—Test Procedures for the Analysis of Pollutants | |
| Appendix A | <p>Method 625 - Base/Neutrals and Acids</p> <p>1.0 USEPA Method 625 Modification Summary - Additional semivolatile organic compounds listed in Tables 1 and 2 are added to all applicable calibration, spiking, and other solutions utilized in the determination of base/neutral and acid compounds by USEPA Method 625.</p> <p>2.0 Section Modifications - For stock standard solutions, calibration standards, precision and accuracy requirements, matrix spike, QC check standard, method performance. Cites several tables.</p> <p>Method 1625 Revision B - Semivolatile Organic Compounds by Isotope Dilution GC/MS</p> <p>1.0 USEPA Method 1625 Revision B Modification Summary - Additional semivolatile organic compounds listed in Tables 1 and 2 are added to all applicable calibration, spiking, and other solutions utilized in the determination of USEPA Method 1625.</p> <p>2.0 Section Modifications - For stock standard solutions, labeled compounds spiking solution, secondary standard, solutions for authentic mass spectra, calibration standards, precision and recovery standard, matrix spike, QC, and other analytical parameters. Cites several tables.</p> |
| Part 445—Landfills Point Source Category | |
| 445.1 | General applicability - to discharges of wastewater from landfill units. Also lists several discharges to which it does not apply. |
| 445.3 | General pretreatment standards - any source subject to this part that introduces wastewater pollutants into a POTW must comply with 40 CFR part 403. |
| Subpart A—RCRA Subtitle C Hazardous Waste Landfill | |
| 445.10 | Applicability - to wastewater from landfills subject to the provisions of 40 CFR Parts 264 and 265. |
| 445.11 | Specifies effluent limitations attainable by the application of the best practicable control technology (BPT) currently available for several parameters (i.e., BOD ₅ , TSS, ammonia, a-terpineol, aniline, benzoic acid, naphthalene, p-cresol, phenol, pyridine, arsenic, chromium, zinc, pH) on a maximum daily basis. |
| 445.12 | Any existing point source subject to this subpart must achieve the following effluent limitations that represent the application of BCT: limitations for BOD ₅ , TSS, and pH are the same as the corresponding limitations specified in 445.11. |
| 445.13 | Any existing point source subject to this subpart must achieve certain effluent limitations under 445.11 that represent the application of BAT. |
| 445.14 | New source performance standards - must achieve same as those specified for 445.11. |
| Subpart B—RCRA Subtitle D Non-Hazardous Waste Landfill | |
| 445.20 | Applicability - to discharges of wastewater from landfills subject to the provisions of 40 CFR Parts 257 and 258. |
| 445.21 | Specifies effluent limitations that represent application of BPT for BOD, TSS, ammonia, a-terpineol, benzoic acid, p-cresol, phenol, zinc, and pH. |
| 445.22 | Any existing point source subject to this subpart must achieve the following effluent limitations that represent the application of best (conventional pollutant) control technology (BCT): limitations for BOD ₅ , TSS, and pH are the same as the corresponding limitations specified in 445.21. |
| 445.23 | Any existing point source subject to this subpart must achieve certain effluent limitations under 445.21 that represent the application of BAT. |
| 445.24 | New source performance standards - must achieve same as those specified for 445.21. |

Table 3: Final Modification of the NPDES Stormwater Multi-Sector General Permit (MSGP) for Industrial Activities

(Federal Register, Vol. 63, No. 189, 30 Sept. 1998, Part VII—USEPA)

| Section | Description |
|-------------------|---|
| Fact Sheet | |
| I | Background - This MSGP replaces the 1992 final NPDES stormwater baseline industrial permit. |
| II | Coverage of Final Modified MSGP - includes Sector L (Landfills and Landfill Application Sites). |
| III | <p>Requirements for Transferred Facilities</p> <p>Notification Requirements - Notification requirements include an NOI that identifies effects on properties covered by the standard industrial classification (SIC) code system. Includes special conditions for non-stormwater discharges, releases of reportable quantities of hazardous substances and oil, and co-located industrial facilities.</p> <p>Non-stormwater discharges - Authorizes potable water sources, uncontaminated groundwater, and a few others provided the discharges are identified in the SWPPP and appropriate pollution prevention measures are included for the discharges.</p> <p>SWPPP requirements - must identify a pollution prevention team, assess potential sources of stormwater pollution, implement BMPs, conduct a comprehensive site inspection/compliance evaluation.</p> <p>Monitoring and reporting requirements:</p> <p>Sampling schedule - Baseline permit required sampling once or twice a year. MSGP requires quarterly monitoring, as appropriate, for years 2 and 4 of the term of the permit (but the years specified - 1996-1997/1998-1999 - have passed)</p> <p>Sample type - Only a grab sample is required for most sectors to be taken within 30 minutes of discharge, unless this is impractical, in which case sampling is required within the first hour of discharge. Quarterly visual examination requirements - Examine for the presence of color, odor, clarity, floating solids, foam, oil sheen, or other obvious indicators of stormwater pollution. Obtain samples during each calendar quarter. Maintain reports of quarterly sampling on site with the SWPPP.</p> <p>Reporting requirements - Submit monitoring results to the permitting authority at the end of each year in which required. Results of quarterly visual observations to be retained on site with the SWPPP.</p> |
| Appendix B | <p>Summary of MSGP and Baseline Permit Requirements for Landfills, Land Application Site, and Open Dumps</p> <p>Baseline - Land disposal units must monitor semiannually for ammonia, magnesium (dissolved), TKN, COD, TDS, TOC, oil and grease, pH, total recoverable [petroleum hydrocarbons], arsenic, barium, cadmium, chromium, cyanide, lead, selenium, silver, total mercury, and acute WET.</p> <p>MSGP - Landfills, land application sites, and open dumps must collect quarterly grab samples for total recoverable iron and TSS during second and fourth years of permit coverage. Municipal solid waste landfills closed in accordance with 40 CFR 258.60 are not required to monitor total recoverable iron. All facilities must conduct quarterly visual examinations of stormwater discharges unless inactive and unstaffed. All facilities may exercise the low concentration waiver, inactive and unstaffed waiver, or alternative certification in lieu of analytical monitoring.</p> <p>MSGP sector-specific SWPPP considerations:</p> <ul style="list-style-type: none"> • Must identify specific wastes that have been disposed. • Provide data on leachate generated at the site. |

Table 3, continued

| Section | Description |
|---------|--|
| | <ul style="list-style-type: none"> • Additional sources of pollutants must be identified under risk identification. • Additional sediment and erosion control requirement. • Inspections for active landfills. • Inspections – weekly. • Monthly for finally stabilized facilities and those located in arid areas. • Monthly inspections if stabilized on during arid seasons. <ul style="list-style-type: none"> ▽ Inspections for inactive landfills – quarterly. ▽ Annual comprehensive site compliance evaluation. |

Appendix B

**California Air Districts
and Summary of Air District Regulations**

Table 4: California Air Quality Management Districts and Air Pollution Control Districts

| District | County(ies) of Jurisdiction |
|---|--|
| Amador County Air Pollution Control District | Amador |
| Antelope Valley Air Pollution Control District | Northeastern Los Angeles County |
| Bay Area Air Quality Management District | Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, portions of Solano and Sonoma |
| Butte County Air Pollution Control District | Butte |
| Calaveras County Air Pollution Control District | Calaveras |
| Colusa County Air Pollution Control District | Colusa |
| El Dorado County Air Pollution Control District | El Dorado |
| Feather River Air Quality Management District | Yuba and Sutter |
| Glenn County Air Pollution Control District | Glenn |
| Great Basin Unified Air Pollution Control District | Alpine, Inyo, Mono |
| Imperial County Air Pollution Control District | Imperial |
| Kern County Air Pollution Control District | Eastern Kern County |
| Lake County Air Quality Management District | Lake |
| Lassen County Air Pollution Control District | Lassen |
| Mariposa County Air Pollution Control District | Mariposa |
| Mendocino County Air Quality Management District | Mendocino |
| Modoc County Air Pollution Control District | Modoc |
| Mojave Desert Air Quality Management District | Northern portions of San Bernardino and Riverside |
| Monterey Bay Unified Air Pollution Control District | Monterey, Santa Cruz, San Benito |
| North Coast Unified Air Quality Management District | Del Norte, Humboldt, Trinity |
| Northern Sierra Air Quality Management District | Nevada, Sierra, Plumas |
| Northern Sonoma County Air Pollution Control District | Portion of Sonoma |
| Placer County Air Pollution Control District | Placer |
| Sacramento Metropolitan Air Quality Management District | Sacramento |
| San Diego County Air Pollution Control District | San Diego |
| San Joaquin Valley Unified Air Pollution Control District | Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare, western Kern |
| San Luis Obispo County Air Pollution Control District | San Luis Obispo |
| Santa Barbara County Air Pollution Control District | Santa Barbara |
| Shasta County Air Quality Management District | Shasta |
| Siskiyou County Air Pollution Control District | Siskiyou |

Table 4, continued

| District | County(ies) of Jurisdiction |
|--|--|
| South Coast Air Quality Management District | Los Angeles (non-desert portion), Orange, western portions of Riverside and San Bernardino |
| Tehama County Air Pollution Control District | Tehama |
| Tuolumne County Air Pollution Control District | Tuolumne |
| Ventura County Air Pollution Control District | Ventura |
| Yolo-Solano Air Quality Management District | Yolo and eastern portion of Solano |

Table 5: District Air Quality Regulation Categories for MSW Landfill Operations

| Regulation Categories | Type of Regulation | Type of Equipment or Operation Affected | Pollutants Controlled |
|-------------------------------------|-----------------------------|---|-------------------------------|
| Landfill Regulations | Prohibitory/Source-Specific | Existing and new landfills including landfill gas collection and control systems | VOC, Toxics |
| Engine/Gas Turbine Regulations | Prohibitory/Source-Specific | Existing and new stationary internal combustion engines and gas turbines | NOx, CO |
| Combustion Contaminants Regulations | Prohibitory/Source-Specific | Existing and new landfill gas flares, stationary internal combustion engines and gas turbines | NOx, CO, SOx, PM |
| Gaseous Fuel Regulations | Prohibitory/Source-Specific | Existing and new landfill gas flares, stationary internal combustion engines and gas turbines | SOx |
| Fugitive Dust Regulations | Prohibitory/Source-Specific | Existing and new landfill haul roads, landfill excavation activities, waste dumping, waste covering | Dust (PM) |
| Permitting NSR/PSD Regulations | Permitting | New and modified landfill gas collection and control systems, leachate/condensate collection and storage systems, landfill gas flares, stationary internal combustion engines, gas turbines, and petroleum hydrocarbon soil use for ADC | NOx, CO, SOx, VOC, PM, Toxics |
| Visible Emissions Regulations | Prohibitory/Source-Specific | Existing and new landfill gas flares, stationary internal combustion engines and gas turbines | PM |
| Nuisance Regulations | Prohibitory/Source-Specific | Existing and new landfills | Odor, dust (PM) |

Both the prohibitory/source-specific and permitting regulations include various emission limits, emission control requirements, and monitoring/testing/reporting requirements. In addition, permitting regulations can also require the performance of air dispersion modeling to insure that state and federal ambient air quality standards are not violated. Furthermore, permitting regulations can also include the requirement for an applicant to obtain emission offsets so that there is no net emission increase associated with a proposed project. The applicability trigger levels and specific requirements of the prohibitory/source-specific and permitting regulations (i.e., emission limits, control equipment, monitoring, etc.) will differ depending on the AQMD/APCD and size of equipment/operation in question.

A permitting regulation establishes requirements for the review of new and modified equipment or operation that emit air pollutants to ensure that the operation of such equipment does not interfere with progress in attainment of state and national air quality standards. Such a permitting program includes requirements for Best Available Control Technology (BACT), air quality impact analysis, and

emission offsets. Under a typical permitting program, an applicant must apply BACT to any new or modified equipment or operation resulting in an increase in emissions ranging from 10 to 100 pounds per day depending on the AQMD/APCD and pollutant. In addition, the applicant must demonstrate with dispersion modeling that the emissions increase from the proposed new or modified equipment or operation will not cause a violation of a state or national air quality standard. Furthermore, a typical permitting regulation requires that an applicant obtain emission offsets for emission increases from new or modified equipment or operation ranging from 10 to 100 tons per year, depending on the AQMD/APCD and pollutant.

Table 6: Summary of AQMD/APCD Air Quality Regulations Applicable to MSWLFs

| Topic | Regulation |
|---|---|
| Amador County Air Pollution Control District | |
| Landfill Regulations | Regulation X Rule 1000 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 218 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Regulation IV (Authority to Construct Regulations) Rule 500 (Procedures For Issuing Permits To Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Antelope Valley Air Pollution Control District | |
| Landfill Regulations | Rule 1150 (Excavation Of Landfill Sites) Rule 1150.1 (Control Of Gaseous Emissions From Active Landfills) Rule 1150.2 (Control Of Gaseous Emissions From Inactive Landfills) |
| Engine/Gas Turbine Regulations | Rule 1110 (Emissions from Stationary Internal Combustion Engines Demonstration) Rule 1110.2 (Emissions from Gaseous-and Liquid-Fueled Internal Combustion Engines) Rule 1134 (Emissions Of Oxides Of Nitrogen From Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 407 (Liquid and Gaseous Air Contaminants) Rule 409 (Combustion Contaminants) Rule 474 (Fuel Burning Equipment) |
| Gaseous Fuel Regulations | Rule 431.1 (Sulfur Content of Gaseous Fuels) |
| Fugitive Dust Regulations | Rule 403 (Fugitive Dust) |
| Permitting NSR/PSD Regulations | Rule 201 (Permit to Construct) Regulation XIII (New Source Review) Rule 1401 (New Source Review of Carcinogenic Air Contaminants) Rule 1402 (Control of Toxic Air Contaminants From Existing Sources) Regulation XVII (Prevention of Significant Deterioration) Regulation XXX (Title V Permits) |
| Topic | Regulation |
| Visible Emissions Regulations | Rule 401 (Visible Emissions) |
| Nuisance Regulations | Rule 402 (Nuisance) |
| Bay Area Air Quality Management District | |
| Landfill Regulations | Regulation 8, Rule 34 (Solid Waste Disposal Sites) |

Table 6, continued

| Topic | Regulation |
|--|---|
| Engine/Gas Turbine Regulations | Regulation 9, Rule 8 (Nitrogen Oxides and Carbon Monoxide From Stationary Internal Combustion Engines) Regulation 9, Rule 9 (Nitrogen Oxides From Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Regulation 9, Rule 1 (Sulfur Dioxide) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Regulation 2, Rule 2 (New Source Review) Regulation 2, Rule 6 (Major Facility Review) |
| Visible Emissions Regulations | Regulation 6 (Particulate Matter And Visible Emissions) |
| Nuisance Regulations | Regulation 1, Rule 1-301 (Public Nuisance) |
| Butte County Air Pollution Control District | |
| Landfill Regulations | Rule 246 (Implementation of the Emission Guidelines for Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 231 (Sulfur Oxide Emission Standard) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 207 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Rule 402 (Authority to Construct) Rule 430 (New Source Review) Rule 1101 (Title V – Federal Operating Permits) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 201 (Nuisance) |
| Calaveras County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Regulation IV (Authority To Construct Regulations) Regulation X (Title V) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |

Table 6, continued

| Topic | Regulation |
|--|---|
| Colusa County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | Rule 2.36 (Stationary Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 2.22 (Sulfur Oxides) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 3.1 (Permits Required) Rule 3.6 (Standards for Authority to Construct – New Source Review) Rule 3.17 (Permits to Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Rule 2.13 (Visible Emissions) |
| Nuisance Regulations | Rule 2.10 (Nuisance) |
| El Dorado County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | Rule 233 (Stationary Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 223 (Fugitive Dust) |
| Permitting NSR/PSD Regulations | Rule 501 (General Permit Required) Rule 522 (Title V – Federal Operating Permit Program) Rule 523 (New Source Review) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Feather River Air Quality Management District | |
| Landfill Regulations | Rule 3.18 (Standards for Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | 3.10 (Sulfur Dioxide) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 3.16 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Rule 10.1 (New Source Review) Rule 10.3 (Federal Operating Permits) |

Table 6, continued

| Topic | Regulation |
|---|--|
| Visible Emissions Regulations | Rule 3.0 (Visible Emissions) |
| Nuisance Regulations | Rule 2.13 (Nuisance) |
| Glenn County Air Pollution Control District | |
| Landfill Regulations | Article IV, Section 104 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Article IV, Section 89 (Sulfur Dioxide) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Article III, Section 50.3 (Prevention of Significant Deterioration) Article III, Section 51 (New Source Review) Article III, Section 51.2 (T-BACT for New or Reconstructed Major Source of Hazardous Air Pollutants) Article VIII (Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Article IV, Section 76 (Visible Emissions) |
| Nuisance Regulations | Article IV, Section 78 (Nuisance) |
| Great Basin Unified Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 404 (Oxides of Nitrogen) Rule 416 (Sulfur Compounds and Nitrogen Oxides) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 401 (Fugitive Dust) |
| Permitting NSR/PSD Regulations | Rule 200 (Permits Required) Rule 216 (New Source Review Requirements for Determining Impact on Air Quality) Rule 217 (Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V) Rule 220 (Construction or Reconstruction of Major Sources of Hazardous Air Pollutants) |
| Visible Emissions Regulations | |
| Nuisance Regulations | Rule 402 (Nuisance) |
| Imperial County Air Pollution Control District | |
| Landfill Regulations | |

Table 6, continued

| Topic | Regulation |
|--|--|
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 400 (Fuel Burning Equipment - Oxides of Nitrogen) Rule 405 (Sulfur Compounds Emission Standards) |
| Gaseous Fuel Regulations | Rule 405.B.5 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | Regulation VIII (Fugitive Dust Requirements) |
| Permitting NSR/PSD Regulations | Rule 201 (Permits Required) Rule 207 (New and Modified Stationary Source) Rule 216 (Construction and Reconstruction of Major Stationary Sources that Emit Hazardous Air Pollutants) Regulation IX (Title V) |
| Visible Emissions Regulations | Rule 401 (Opacity of Emissions) |
| Nuisance Regulations | Rule 407 (Nuisances) |
| Kern County Air Pollution Control District | |
| Landfill Regulations | Rule 422.1 (Municipal Solid Waste Landfills - Non-methane Organic Compounds) |
| Engine/Gas Turbine Regulations | Rule 425 (Cogeneration Gas Turbine Engines) Rule 427 (Stationary Piston Engines - Oxides of Nitrogen) |
| Combustion Contaminants Regulations | Rule 407 (Sulfur Compounds) Rule 407.2 (Fuel Burning Equipment – Combustion Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 402 (Fugitive Dust) |
| Permitting NSR/PSD Regulations | Rule 201 (Permits Required) Rule 201.1 (Permits to Operate for Sources Subject to Title V) Rule 210.1 (New and Modified Stationary Source Review) Rule 210.4 (Prevention of Significant Deterioration) |
| Visible Emissions Regulations | Rule 401 (Visible Emissions) |
| Nuisance Regulations | Rule 419 (Nuisance) |
| Lake County Air Quality Management District | |
| Landfill Regulations | Chapter II, Article IV, Section 441 (Performance Standards For Existing Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Chapter II, Article II , Section 410 (Particulate Matter Emissions) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |

Table 6, continued

| Topic | Regulation |
|---|--|
| Permitting NSR/PSD Regulations | Chapter IV (Permits) Article I (Authority to Construct) Article II (Permit to Operate) Chapter XII (Title V) |
| Visible Emissions Regulations | Chapter II (Prohibitions and Standards Article I Visible Emissions) |
| Nuisance Regulations | Chapter II, Article IV, Section 430 (Other Emissions or Contaminants) |
| Lassen County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 4:4 (Specific Air Contaminants) |
| Gaseous Fuel Regulations | Rule 4:10 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | Rule 4:18 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Regulation II (Permits) Regulation VI (New Source Siting) Regulation VII (Title V) |
| Visible Emissions Regulations | Rule 4:0 (Ringelmann Chart) |
| Nuisance Regulations | Rule 4:2 (Nuisance) |
| Mariposa County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Regulation IV (Authority to Construct Regulations) Regulation X (Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Mendocino County Air Quality Management District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |

Table 6, continued

| Topic | Regulation |
|--|---|
| Combustion Contaminants Regulations | Rule 440 (Sulfur Oxide Emissions) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 430 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Rule 200 (Permit Requirements) Rule 220 (New Source Review Standards) Regulation 5 (Procedures for Issuing Permits to Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Rule 410 (Visible Emissions) |
| Nuisance Regulations | Rule 400 (a) (Public Nuisance) |
| Modoc County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 4.4 (Specific Air Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 2.1 (Permits Required) Rule 2.13 (Permitting Title V Sources) Regulation VI (New Source Siting) |
| Visible Emissions Regulations | Rule 4.1 (Visible Emissions) |
| Nuisance Regulations | Rule 4.2 (Nuisance) |
| Mojave Desert Air Quality Management District | |
| Landfill Regulations | Rule 1126 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 1159 (Stationary Gas Turbines) Rule 1160 (Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 406 (Specific Contaminants) Rule 407 (Liquid and Gaseous Air Contaminants) Rule 409 (Combustion Contaminants) Rule 474 (Fuel Burning Equipment) Rule 67 (Fuel Burning Equipment) |
| Gaseous Fuel Regulations | Rule 431 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | Rule 403 (Fugitive Dust) Rule 403.1 (Fugitive Dust Control for the Searles Valley Planning Area) Rule 403.2 (Fugitive Dust Control for the Mojave Desert Planning Area) |

Table 6, continued

| Topic | Regulation |
|--|--|
| Permitting NSR/PSD Regulations | Regulation II (Permits) Regulation XII (Federal Operating Permits) Regulation XIII (New Source Review) Rule 1520 (Control of Toxic Air Contaminants from Existing Sources)(draft) |
| Visible Emissions Regulations | Rule 401 (Visible Emissions) |
| Nuisance Regulations | Rule 402 (Nuisance) |
| Monterey Bay Unified Air Pollution Control District | |
| Landfill Regulations | Rule 437 (Municipal Solid Waste Landfills) Rule 1001 (Solid Waste Disposal Sites) |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 404 (Sulfur Compounds and Nitrogen Oxides) |
| Gaseous Fuel Regulations | Rule 412 (Sulfur Content Of Fuels) |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 200 (Permits Required) Rule 207 (Review of New or Modified Sources) Rule 218 (Title V: Federal Operating Permits) Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants) |
| Visible Emissions Regulations | Rule 400 (Visible Emissions) |
| Nuisance Regulations | Rule 402 (Nuisances) |
| North Coast Unified Air Quality Management District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 440 (Sulfur Oxide Emissions) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 430 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Rule 200 (Permit Requirements) Rule 220 (New Source Review) Rule 240 (Permit to Operate) Regulation 5 (Procedures for Issuing Permits to Operate for Sources Subject to Title V) |
| Visible Emissions Regulations | Rule 410 (Visible Emissions) |
| Nuisance Regulations | |
| Northern Sierra Air Quality Management District | |

Table 6, continued

| Topic | Regulation |
|--|--|
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 226 (Dust Control) |
| Permitting NSR/PSD Regulations | Regulation IV (Authority to Construct Regulations) Regulation V (Permit to Operate Regulations) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Northern Sonoma County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 440 (Sulfur Oxide Emissions) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 1- 430 (Fugitive Dust Emissions) |
| Permitting NSR/PSD Regulations | Rule 1-200 (Permit Requirements) Rule 1-220 (New Source Review Standards) 1-225 (Toxics Review Standards) Regulation 5 (Procedures for Issuing Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990) |
| Visible Emissions Regulations | Rule 1-410 (Visible Emissions) |
| Nuisance Regulations | |
| Placer County Air Pollution Control District | |
| Landfill Regulations | Rule 237 (Municipal Landfills) |
| Engine/Gas Turbine Regulations | Rule 250 (Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 228 (Fugitive Dust – Lake Tahoe Air Basin) |

Table 6, continued

| Topic | Regulation |
|--|---|
| Permitting NSR/PSD Regulations | Rule 501 (General Permit Requirements) Rule 502 (New Source Review) Rule 507 (Federal Operating Permit Program) Rule 513 (Toxic New Source Review) |
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Sacramento Metropolitan Air Quality Management District | |
| Landfill Regulations | Rule 485 (Municipal Landfill Gas) |
| Engine/Gas Turbine Regulations | Rule 412 (Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx) Rule 413 (Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 406 (Specific Contaminants) |
| Gaseous Fuel Regulations | Rule 420 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | Rule 403 (Fugitive Dust) |
| Permitting NSR/PSD Regulations | Rule 201 (General Permit Requirements) Rule 202 (New Source Review) Rule 203 (Prevention of Significant Deterioration) Rule 207 (Title V – Federal Operating Permit Program) |
| Visible Emissions Regulations | Rule 401 (Ringelmann Chart) |
| Nuisance Regulations | Rule 402 (Nuisance) |
| San Diego County Air Pollution Control District | |
| Landfill Regulations | Rule 59 (Control of Waste Disposal Site Emissions) Rule 59.1 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 69.3 (Stationary Gas Turbine Engines RACT) Rule 69.3.1 (Stationary Gas Turbine Engines BARCT) Rule 69.4 (Stationary Reciprocating Internal Combustion Engines – RACT) Rule 69.4.1 (Stationary Reciprocating Internal Combustion Engines – Best Available Retrofit Control Technology) |
| Combustion Contaminants Regulations | Rule 53 (Specific Air Contaminants) |
| Gaseous Fuel Regulations | Rule 62 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | |

Table 6, continued

| Topic | Regulation |
|--|---|
| Permitting NSR/PSD Regulations | Rule 10 (Permits Required) Rule 20.1 (new Source Review – General Provisions) Rule 20.3 (New Source Review – Major Stationary Sources and PSD Stationary Sources) Rule 1200 (Toxic Air Contaminants – New Source Review) Regulation XIV (Title V Operating Permits) |
| Visible Emissions Regulations | Rule 50 (Visible Emissions) |
| Nuisance Regulations | Rule 51 (Nuisance) |
| San Joaquin Valley Unified Air Pollution Control District | |
| Landfill Regulations | Rule 4642 (Solid Waste Disposal Sites) |
| Engine/Gas Turbine Regulations | Rule 4701 (Internal Combustion Engines) Rule 4703 (Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 4301 (Fuel Burning Equipment Amended) Rule 4801 (Sulfur Compounds) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 8010 (Fugitive Dust Administrative Requirements for Control of Fine Particulate Matter) Rule 8020 (Fugitive Dust Requirements for Control of Fine Particulate Matter from Construction, Demolition, Excavation, and Extraction Activities) Rule 8030 (Fugitive Dust Requirements for Control of Fine Particulate Matter from Handling and Storage of Bulk Materials) Rule 8040 (Fugitive Dust Requirements for Control of Fine Particulate Matter from Landfill Disposal Sites) Rule 8060 (Fugitive Dust Requirements for Control of Fine Particulate Matter from Paved and Unpaved Roads) Rule 8070 (Fugitive Dust Requirements for Control of Fine Particulate Matter from Vehicle and/or Equipment Parking, Shipping, Receiving, Transfer, Fueling, and Service Areas) |
| Permitting NSR/PSD Regulations | Rule 2010 (Permits Required) Rule 2201 (New and Modified Stationary Source Review) Rule 2520 (Federally Mandated Operating Permits) |
| Visible Emissions Regulations | Rule 4101 (Visible Emissions) |
| Nuisance Regulations | Rule 4102 (Nuisance) |
| San Luis Obispo County Air Pollution Control District | |
| Landfill Regulations | Rule 426 – (Landfill Gas Emissions) |

Table 6, continued

| Topic | Regulation |
|--|--|
| Engine/Gas Turbine Regulations | Rule 431 – (Stationary Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 404.A (Sulfur Compounds Emission Standards) Rule 405 (Nitrogen Oxides Emission Standards) Rule 406 (Carbon Monoxide Emission Standards) |
| Gaseous Fuel Regulations | Rule 404.E (Sulfur Compounds Emission Standards) |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 202 (Permits) Rule 204 (Requirements) Rule 216 (Federal Part 70 Permits) Rule 219 (Toxic New Source Review) |
| Visible Emissions Regulations | Rule 401 (Visible Emissions) |
| Nuisance Regulations | Rule 402 (Nuisance) |
| Santa Barbara County Air Pollution Control District | |
| Landfill Regulations | Rule 341 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 333 (Control of Emissions From Recipients of Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 309 (Specific Contaminants) |
| Gaseous Fuel Regulations | Rule 311 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 201 (Permits Required) Rule 206 (Conditional Approval of Authority to Construct or Permit to Construct) Rule 801 (New Source Review) Rule 803 (Prevention of Significant Deterioration) Regulation XII (Part 70 Operating Permit Program) |
| Visible Emissions Regulations | Rule 302 (Visible Emissions) |
| Nuisance Regulations | Rule 303 (Nuisance) |
| Shasta County Air Quality Management District | |
| Landfill Regulations | Rule 3:29 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 3:28 (Stationary Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 3:2 (Specific Air Contaminants) |

Table 6, continued

| Topic | Regulation |
|---|---|
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 3:16 (Fugitive, Indirect, or Non-Traditional Sources) |
| Permitting NSR/PSD Regulations | Rule 2:1 (New Source Review and Prevention of Significant Deterioration) Rule V (Title V) |
| Visible Emissions Regulations | Rule 3:2 (Specific Air Contaminants) |
| Nuisance Regulations | |
| Siskiyou County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 4.4 (Specific Air Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 2.1 (Permits Required) Rule 2.13 (Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendment of 1990) Rule 6.1 (Construction Permit Standards for Criteria Pollutants) Rule 6.2 (Standards for Permits to Operate) Rule 6.4 (Construction Permit Standards for Hazardous Air Pollutants) |
| Visible Emissions Regulations | Rule 4.1 (Visible Emissions) |
| Nuisance Regulations | Rule 4.2 (Nuisance) |
| South Coast Air Quality Management District | |
| Landfill Regulations | Rule 1150 (Excavation of Landfill Sites) Rule 1150.1 (Control Of Gaseous Emissions From Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 1110-1 (Emissions from Stationary Internal Combustion Engines) Rule 1110.2 (Emissions from Gaseous –and Liquid-fueled Internal Combustion Engines) Rule 1134 (Emissions of Oxides of Nitrogen from Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 407 (Liquid and Gaseous Air Contaminants) Rule 409. (Combustion Contaminants) |
| Gaseous Fuel Regulations | Rule 431.1. (Sulfur Content Of Gaseous Fuels) |
| Fugitive Dust Regulations | Rule 403 (Fugitive Dust) Rule 403.1 (Wind Entrainment of Fugitive Dust) |

Table 6, continued

| Topic | Regulation |
|---|---|
| Permitting NSR/PSD Regulations | Regulation II (Permits) Regulation XIII (New Source Review) <i>Regulation XIV (New Source Review of Toxic Air Contaminants)</i> Regulation XVII (Prevention of Significant Deterioration) Regulation XX (Regional Clean Air Incentives Market) Landfill gas control, processing, or energy recovery facilities are exempt. Regulation XXX (Title V Permits) |
| Visible Emissions Regulations | Rule 401 (Visible Emissions) |
| Nuisance Regulations | Rule 402 (Nuisance) |
| Tehama County Air Pollution Control District | |
| Landfill Regulations | Rule 4:33 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 4:34 (Stationary Internal Combustion Engines) |
| Combustion Contaminants Regulations | Rule 4:9 (Specific Contaminants) Rule 4.14 (Fuel Burning Equipment) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | Rule 4:24 (Fugitive, Indirect, or Non-Traditional Sources) |
| Permitting NSR/PSD Regulations | Rule 2:2 (Permits Required) Rule 2:3 (Registration or Permit to Operate) Rule 2:3A (New Source Review) Regulation VII (Title V) |
| Visible Emissions Regulations | Rule 4:1 (Visible Emissions) |
| Nuisance Regulations | Rule 4:4 (Nuisance) |
| Tuolumne County Air Pollution Control District | |
| Landfill Regulations | |
| Engine/Gas Turbine Regulations | |
| Combustion Contaminants Regulations | Rule 210 (Specific Contaminants) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Regulation IV (Authority to Construct) Regulation V (Permit to Operate) |

Table 6, continued

| Topic | Regulation |
|--|--|
| Visible Emissions Regulations | Rule 202 (Visible Emissions) |
| Nuisance Regulations | Rule 205 (Nuisance) |
| Ventura County Air Pollution Control District | |
| Landfill Regulations | Rule 74.17.1 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 74.9 (Stationary Internal Combustion Engines) Rule 74.23 (Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 54 (Sulfur Compounds) Rule 57 (Combustion Contaminants – Specific) |
| Gaseous Fuel Regulations | Rule 64 (Sulfur Content of Fuels) |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 10 (Permits Required) Rule 26 (New Source Review) Rule 26.10 (New Source Review – PSD) Rule 33 (Part 70 Permits) |
| Visible Emissions Regulations | Rule 50 (Opacity) |
| Nuisance Regulations | Rule 51 (Nuisance) |
| Yolo-Solano Air Quality Management District | |
| Landfill Regulations | Rule 2.38 (Municipal Solid Waste Landfills) |
| Engine/Gas Turbine Regulations | Rule 2.32 (Stationary Internal Combustion Engines) Rule 2.34 (Stationary Gas Turbines) |
| Combustion Contaminants Regulations | Rule 2.12 (Specific Contaminants) Rule 2.16 (Fuel Burning Heat or Power Generators) |
| Gaseous Fuel Regulations | |
| Fugitive Dust Regulations | |
| Permitting NSR/PSD Regulations | Rule 3.4 (New Source Review) Rule 3.8 (Federal Operating Permits) Rule 3.13 (Toxics New Source Review) |
| Visible Emissions Regulations | Rule 2.3. (Ringelmann Chart) |
| Nuisance Regulations | Rule 2.5 (Nuisance) |

Table 7: Comparison of General Landfill Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|--------------------------|--|---|
| Rule Number - Title | Rule 3:29 - Municipal Solid Waste Landfills (this rule adopts the requirements of 40 CFR 60, Subpart WWW) | Rule 1150.1 - Control of Gaseous Emissions From Municipal Solid Waste Landfills |
| Purpose | Limit non-methane organic compounds (NMOC) emissions by installing a landfill gas collection and control system. [3:29 A.] | Limit MSWLF emissions to prevent public nuisance and possible detriment to public health. [1150.1(a)] |
| Applicability Trigger | Landfill design capacity $\geq 2.5 \times 10^9$ kg or $\geq 2.5 \times 10^6$ m ³ and NMOC emissions $\geq 50 \times 10^6$ g/yr. [3:29 E.1.] | Rule applies to each active and inactive landfill. [1150.1(b)] |
| Compliance Plan Schedule | Submit plan within 1 year after determining that NMOC emission rate is $\geq 50 \times 10^6$ g/yr. [3:29 G.2.] | Submit site-specific collection and control system design plan with applications for permits to construct or permits to operate for landfill activities. [1150.1(d)] |
| Compliance Deadline | Install system within 30 months after first annual report in which NMOC $\geq 50 \times 10^6$ g/yr. [3:29 G.3.] | Install and operate collection and control system no later than 18 months after submittal of design plan. [1150.1(d)] |
| Performance Requirements | Collect landfill gas and route to control system with 98% by weight NMOC reduction or reduce outlet NMOC concentration to <20 ppmv as hexane at 3% O ₂ ; or process collected gas for sale or use. [3:29 E.2.] [40 CFR 60.752] Operate landfill gas collection system to prevent landfill surface methane concentrations from exceeding 500 ppmv. [40 CFR 60.753] | Collect landfill gas and route to control system designed and operated to reduce NMOC by at least 98% by weight or reduce outlet NMOC concentration to <20 ppmv as hexane at 3% O ₂ ; or process collected gas for subsequent sale or use. Operate landfill gas collection system to prevent concentration of TOC (total organic compounds) measured as methane from exceeding specified limits: <ul style="list-style-type: none"> • 5% vol. in subsurface sampling probes. • 50 ppmv determined by integrated samples. • 500 ppmv determined by instantaneous monitoring at any location on landfill surface. [1150.1(d)] |
| Testing Requirements | Conduct initial performance test of landfill gas control system within 6 months of startup of system. [3:29 G.4.] | Conduct initial source test of landfill gas control system within 60 days after achieving maximum production rate at which facility will be operated, but not later than 180 days after initial startup. [1150.1(d)] |
| Monitoring Requirements | Monitor pressure, temperature, nitrogen or oxygen content of landfill gas. Monitor exhaust temperature and landfill gas flow of control device. Monitor landfill surface methane concentrations. [40 CFR 60.756] | Monitor TOC and TAC concentrations in landfill gas. Monitor the exhaust temperature and landfill gas flow of control device. Install and operate subsurface probes along landfill boundary. Perform integrated and instantaneous landfill surface monitoring. [1150.1(e)] |

Table 7, continued

| Requirements | Shasta County | South Coast |
|-----------------------------|---|--|
| Record-keeping Requirements | Emissions, quantity of waste-in-place, waste acceptance rate. [3:29 F.] [40 CFR 60.758] | Maintain for at least 5 years all data, including control system vendor specifications, landfill gas flow rates, average combustion temperatures, location and concentration of landfill gas samples, periods of operation of boilers, and process heaters. [1150.1(f)] |
| Reporting Requirements | Initial design capacity report. [3:29 E.2.] NMOC emission rate report initially and annually. 5-year estimates of waste-in-place and waste acceptance rate. Closure report within 30 days of ceasing waste acceptance. [3:29 F.] [40 CFR 60.757] | Initial source test report within 180 days after startup, annual source test report no later than 45 days after anniversary date of initial source test. Quarterly reports of exceedances of emissions standards no later than 45 days after last day of each calendar quarter. Closure report no later than 30 days after ceasing waste acceptance. Decommissioning report 30 days before well capping or removal or cessation of operation of collection or control equipment. [1150.1(f)] |

Table 8: Comparison of Internal Combustion Reciprocating Engine Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|---|------------|-----------|-----------|-----|------|-----------|-----|------|--------------------|-----|------|------|------------|-----------|-----------|----|------|-----------|-----|------|--------------------|-----|------|---|
| Rule Number - Title | Rule 3:28 - Stationary Internal Combustion Engines | Rule 1110.2 - Emissions From Gaseous- and Liquid-Fueled Internal Combustion Engines | | | | | | | | | | | | | | | | | | | | | | | | |
| Purpose | To limit emissions of NOx and CO from stationary reciprocating internal combustion (IC) engines. [3:28 A.] | To reduce emissions of NOx, VOCs, and CO from stationary and portable reciprocating internal combustion (IC) engines. [1110.2(a)] | | | | | | | | | | | | | | | | | | | | | | | | |
| Applicability Trigger | Any gaseous, diesel, or other liquid-fueled stationary IC engine rated at >50 bhp. [3:28 C.] | All stationary and portable engines rated at >50 bhp. [1110.2(b)] | | | | | | | | | | | | | | | | | | | | | | | | |
| Compliance Deadline | The final compliance deadline is 1 January 1999. [3:28 H.] | The final compliance deadline is 31 December 2004 for stationary engines and 31 December 2009 for portable engines. [1110.2(e)] | | | | | | | | | | | | | | | | | | | | | | | | |
| Emission Limits | <p>NOx and CO emissions limits (ppmv @ 15% O₂) depend on power rating, fuel type, and air-fuel ratio.</p> <p>Engines rated at >50 bhp and 300 bhp:</p> <table> <tr> <th>Type</th><th>NOx (ppmv)</th><th>CO (ppmv)</th></tr> <tr> <td>Rich Burn</td><td>640</td><td>4500</td></tr> <tr> <td>Lean Burn</td><td>740</td><td>4500</td></tr> <tr> <td>Diesel/Liquid Fuel</td><td>600</td><td>4500</td></tr> </table> <p>Engines rated at >300 bhp:</p> <table> <tr> <th>Type</th><th>NOx (ppmv)</th><th>CO (ppmv)</th></tr> <tr> <td>Rich Burn</td><td>90</td><td>4500</td></tr> <tr> <td>Lean Burn</td><td>150</td><td>4500</td></tr> <tr> <td>Diesel/Liquid Fuel</td><td>600</td><td>4500</td></tr> </table> | Type | NOx (ppmv) | CO (ppmv) | Rich Burn | 640 | 4500 | Lean Burn | 740 | 4500 | Diesel/Liquid Fuel | 600 | 4500 | Type | NOx (ppmv) | CO (ppmv) | Rich Burn | 90 | 4500 | Lean Burn | 150 | 4500 | Diesel/Liquid Fuel | 600 | 4500 | <p>Remove stationary engines from service, or replace engines with electric motors, or reduce emissions to specified levels.</p> <p>With the exception of the following engines, all engines must comply with: 36 ppm NOx, 250 ppm VOC as methane, 2000 ppm CO, all values are corrected to 15% O₂.</p> <p>Stationary engines used for electric power generation, landfill gas fired, digester gas fired, water pump, oil fired, gas fired, LPG fired, and compressors operating less than 4,000 hrs/year.</p> <p>Stationary engines of 50 hp to 500 hp - 2000 ppm CO, NOx, and VOC ppm values of 45 and 250 ppmv, respectively, corrected by full-load efficiency factor or actual heat input rate, all values are corrected to 15% O₂.</p> <p>Stationary engines greater than 500 hp - 2000 ppm CO, NOx, and VOC ppm values of 36 and 250 ppmv, respectively, corrected by full-load efficiency factor or actual heat input rate, all values are corrected to 15% O₂.</p> <p>Portable spark ignition engines: 176 ppm CO, 80 ppm NOx, 240 ppm VOC, all values are corrected to 15% O₂.</p> <p>Portable compression-ignition engines: 770 ppm NOx (50 hp to less than 117 hp), 550 ppm NOx (117 hp to less than 400 hp), 535 ppm NOx (greater than 400 hp), all values are corrected to 15% O₂.</p> |
| Type | NOx (ppmv) | CO (ppmv) | | | | | | | | | | | | | | | | | | | | | | | | |
| Rich Burn | 640 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Lean Burn | 740 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Diesel/Liquid Fuel | 600 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | NOx (ppmv) | CO (ppmv) | | | | | | | | | | | | | | | | | | | | | | | | |
| Rich Burn | 90 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Lean Burn | 150 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Diesel/Liquid Fuel | 600 | 4500 | | | | | | | | | | | | | | | | | | | | | | | | |
| Testing Requirements | Conduct initial emissions test (NOx, CO, oxygen). Conduct annual emissions tests with portable analyzer. [3:28 G.] | Conduct source test for NOx, VOC, and CO at least once every 3 years. [1110.2(f)] | | | | | | | | | | | | | | | | | | | | | | | | |

Table 8, continued

| Requirements | Shasta County | South Coast |
|-----------------------------|--|---|
| Monitoring Requirements | Monitor engine operating time, type, and amount of fuel consumed. [3:28 F.] | Monitor engine operating time, type, and amount of fuel consumed. For engines rated . 1000 bhp, install and operate NOx CEMS or approved alternative device. [1110.2(f)] |
| Record-keeping Requirements | Maintain for two years operating log showing hours of operation, type, and amount of fuel burned, maintenance, initial and annual emission test results. [3:28 F.] | Maintain CEMS data for at least two years, maintain engine operating log of total hours of operation, fuel consumption, cumulative hours of operation since last source test. [1110.2(f)] |
| Reporting Requirements | Provide to APCO engine and emission control specifications. Submit to APCO on request engine operating log. [3:28 F.] | Make engine operating log and CEMS data available for inspection by District; provide source test data to District. [1110.2(f)] |

Table 9: Comparison of Gas Turbine Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast | |
|-------------------------|---|--|---------------------------|
| Rule Number - Title | Since there is no District gas turbine regulation, the requirements of 40 CFR 60, Subpart GG apply. | Rule 1134 - Emissions of Oxides of Nitrogen from Stationary Gas Turbines | |
| Engines Covered by Rule | All stationary gas turbines that commenced construction, modification, or reconstruction after 3 October 1997 | All existing stationary gas turbines as of August 4, 1989 (and installed subsequently). [1134(a)] | |
| Applicability Trigger | Turbines with a heat input equal to or greater than 10.7 GJ per hour. | Turbines rated 0.3 MW and larger. [1134(a)] | |
| Compliance Deadline | Initial compliance test within 180 days of startup of unit | Compliance deadline of 31 December 1995 for all gas turbines with the exception of 2.9 to 10 MW units burning a minimum of 60% sewage digester gas by volume on a daily basis. For these units the compliance deadline is 11 April 1997. [1134(c)] | |
| Emission Limits | NOx limit (ppm @ 15% O ₂) = 0.0075 x (14.4/Y) x F Where: Y = heat rate of turbine F = fuel bound nitrogen content SOx limit = 0.015% vol. @ 15% O ₂ or shall not burn fuel with a sulfur content in excess of 0.8% wt. | Gas turbine NOx limits based on MW rating, rated efficiency. Compliance Limit = Reference Limit H (EFF/25%), where EFF is manufacturer's rated efficiency or is based on actual heat rate, and Reference Limits are as follows: [1134(c)] | |
| | | MW Rating | Reference Limit (NOx ppm) |
| | | 0.3 to <2.9 | 25 |
| | | 2.9 to <10.0 | 9 |
| | | 2.9 to <10.0, No SCR | 15 |
| | | 10.0 and Over | 9 |
| | | 10.0 and Over, No SCR | 12 |
| | | 60 and Over Combined Cycle, No SCR | 15 |
| | | 60 and Over Combined Cycle | 9 |
| Testing Requirements | Conduct initial source test for NOx within 180 days of startup. | Conduct source test for NOx, efficiency, CO, and oxygen. Frequency of source testing depends on annual NOx emissions. [1134(d)] | |
| Monitoring Requirements | Continuous monitoring of water injection rate, fuel flow rate, and water to fuel ratio (if water injection used for NOx control) Daily testing of fuel sulfur content unless an alternative test schedule is approved by the USEPA | For gas turbines rated ≥2.9 MW, install and operate NOx and O ₂ CEMS, including fuel flow rate, turbine operating time, and water-fuel ratio if water used for NOx control. [1134(d)] | |

Table 9, continued

| Requirements | Shasta County | South Coast |
|-----------------------------|--|---|
| Record-keeping Requirements | Maintain all records for 5 years. | Maintain all records for 2 years, maintain gas turbine operating log including operating times, fuel used, CEMS operation and maintenance. [1134(f)] |
| Reporting Requirements | Quarterly compliance reports to the USEPA. | Make available to District staff upon request all records. Submit monthly summary of emissions based on CEMS operation on or before last day of following calendar month. [1134(f)] |

Table 10: Comparison of Combustion Contaminant Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|--|---|
| Rule Number - Title | Rule 3:2 - Specific Air Contaminants | Rule 407 - Liquid and Gaseous Air Contaminants Rule 409 - Combustion Contaminant |
| Purpose | Prevent discharge of contaminants (particulate matter) in amounts greater than designated. [3:2] | |
| Applicability | Any single source. [3:2] | Any equipment or operation, except stationary IC engines, propulsion of mobile equipment, and emergency venting. [407(b)] |
| Emission Limits | Maximum emission limited to 0.10 g/dscf combustion PM, 0.05 g/dscf PM ₁₀ , 0.15 g/dscf all other PM, all values referenced to 12% CO ₂ . [3:2 Table 1] | Prohibits discharge into the atmosphere from any equipment or operation CO exceeding 2,000 ppmvd, 15-minute average. [407(a)] Prohibits discharge into the atmosphere, from the burning of fuel, combustion contaminants (PM) exceeding 0.1 g/dscf, at 12% CO ₂ , averaged over 15 minutes. [409] |

Table 11: Comparison of Gaseous Fuel Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|-----------------------------|----------------------|---|
| Rule Number - Title | No Regulation | Rule 431.1 - Sulfur Content of Gaseous Fuels |
| Purpose | | To reduce sulfur oxides emissions from the burning of gaseous fuels in stationary equipment requiring a Permit To Operate (PTO). [431.1(a)] |
| Applicability Trigger | | Facility sulfur compound emissions ≥ 5 lbs/day as H_2S from burning gaseous fuels other than natural gas. [431.1(g)] |
| Requirements | | Do not burn in equipment requiring PTO, transfer, sell, or offer for sale for use in District any landfill gas containing more than 150 ppmv sulfur compounds calculated as H_2S , averaged daily. [431.1(c)] |
| Monitoring Requirements | | Continuously monitor either fuel gas sulfur content as H_2S or SO_x emissions, or use an approved alternative monitoring method. [431.1(d)] |
| Compliance Deadline | | If previously exempt or in compliance, submit within 30 days from time of noncompliance a plan to demonstrate compliance; submit application for fuel gas control system within 6 months of time of exceedance of 5 lbs per day total sulfur as H_2S ; demonstrate compliance with 150 ppmv within 18 months after the time of the exceedance. [431.1(c)] |
| Record-keeping Requirements | | Maintain for at least two years records of monthly fuel consumption, daily average sulfur content, total SO_x emissions, and continuous monitor breakdown. [431.1(e)] |
| Reporting Requirements | | Submit annual reports of monthly fuel consumption and total sulfur content of fuel consumed, no later than 60 days following end of reporting year. Include monthly fuel consumption, daily average sulfur content, and total SO_x emissions as SO_2 . [431.1(e)] |

Table 12: Comparison of Fugitive Dust Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|----------------------|---|---|
| Rule Number - Title | Rule 3:16 - Fugitive, Indirect, or Non-Traditional Sources | Rule 403 - Fugitive Dust Rule 403.1 - Wind Entrainment of Fugitive Dust |
| Purpose | Mitigate emissions to below a level of significance or to a point where emissions do not constitute a violation of California Health & Safety Code 41700 or 41701. [3:16] | Reduce the amount of particulate matter in ambient air as a result of man-made fugitive dust. [403(a)] Prevent or reduce the amount of PM ₁₀ entrained in ambient air by high winds acting on man-made fugitive dust sources. [403.1(a)] |
| Applicability | Fugitive sources, indirect sources, non-traditional sources. [3:16] | Any activity or man-made condition capable of generating fugitive dust. [403(b)] Only in the Coachella Valley, to activity or man-made condition capable of generating fugitive dust, except unpaved road dust, when wind speeds exceed 25 mph. [403.1(b)] |
| Requirements | No discharge of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public, or which endanger the comfort, repose, health, or safety, or which cause injury or damage to business or property. [H&SC 41700] | Utilize BACT to minimize fugitive dust emissions. Prevent or remove trackout of bulk material onto paved public roadways. [403(d)] |
| Compliance Plan | | A compliance plan is required for large (more than 100 acres) and medium (50 to 100 acres) operations. The plan must be submitted to the District 30 days prior to the activity. [403(f)] |
| Emission Limits | No emissions shall be as dark as or darker than Ringelmann No. 2. [H&SC 41701] | A person shall not cause or allow emissions of fugitive dust from any active operation, open storage pile, disturbed surface area such that dust remains visible in the atmosphere beyond the source property line. PM ₁₀ levels not to exceed 50 µg/m ³ . [403(d)] |
| Testing Requirements | | Simultaneous ambient particulate sampling upwind and downwind of key activity areas and as close to property line as feasible. [403(d)] |

Table 13: Comparison of Permitting Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|---|--|
| Rule Number - Title | Rule 2:1 A - Permits Required | Rule 201 - Permit to Construct Rule 202 - Temporary PTO |
| Applicability | Any building, machine, or equipment the use of which may cause issuance of air contaminants. [2:1.A.a] | Any equipment the use of which may cause issuance of air contaminants, or eliminate, reduce, or control air contaminants. [201, 202] |
| Requirements | <p>Authority to construct must be obtained before building, erecting, altering, or replacing any article, machine, equipment, or other contrivance the use of which may cause issuance of air contaminants. [2:1A a.]</p> <p>PTO must be obtained before any article, machine, equipment, or other contrivance the use of which may cause the issuance of air contaminants. [2:1A b.]</p> | <p>Obtain written permit to construct. [201]</p> <p>Obtain written PTO. [202]</p> |

Table 14: Comparison of New Source Review Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|--|--|
| Rule Number - Title | Rule 2:1 - New Source Review and Prevention of Significant Deterioration (this rule is the SIP approved version of the 40 CFR 51.165 regulations) | Regulation XIII - New Source Review (this rule is the SIP approved version of the 40 CFR 51.165 regulations) |
| Purpose | Establish preconstruction review requirements for new and modified stationary sources for use of BACT, analysis of air quality impacts, and to ensure that operation of such sources does not interfere with attainment of ambient air quality standards. [2:1 101] | To ensure that operation of new, modified, or relocated facilities does not interfere with progress in attainment of NAAQS and that future economic growth within SCAQMD is not unnecessarily restricted. [1301(a)] |
| Applicability | All new and modified stationary sources that are subject to permit requirements and after construction emit affected pollutants. [2:1 102] | Installation of new source or modification of existing source that may cause issuance of any nonattainment air contaminant. Non-road or portable IC engines subject to USEPA regulations are exempt. [1301(b)] |
| Requirements | <p>Apply BACT to any new emissions unit or modification that results in emission increase or potential to emit equal to or greater than limits specified below. [2:1 301]</p> <p>Use emission impact analysis to estimate effects of new or modified source; emissions shall not cause or make worse violation of an ambient air quality standard. [2:1 306]</p> <p>BACT triggers for 15 criteria pollutants and TACs. [2:1 301]</p> | <p>BACT to be employed if project results in emission increase. No net emission increase without offsets and modeling of air quality impact. [1303]</p> <p>Exemption from modeling and offset requirements allowed for replacement sources, emergency equipment, air pollution control strategies, emergencies, and portable equipment. Exemption from modeling and offset requirements for portable IC engines and intra-facility portable IC engines meeting emissions limits as shown:</p> <p>VOC: 55 pounds per day, NOx: 55 ppd, SOx: 150 ppd, PM₁₀: 150 ppd, CO: 550 ppd; or, for South East Desert Air Basin: VOC: 75 pounds per day, NOx: 100 ppd, SOx: 150 ppd, PM₁₀: 150 ppd, CO: 550 ppd. [1304(a), (b)]</p> <p>New facility with potential to emit less than amounts shown shall be exempt from providing offsets: 4 tons per year of VOC, NOx, SOx, and PM₁₀, and 29 tpy CO. [1304(d)]</p> |

Table 14, continued

| Requirements | Shasta County | | South Coast | |
|-----------------|---|------------|--|--------------------------|
| | Pollutant | Pounds/day | | |
| | Reactive organic compounds | 25.0 | | |
| | Nitrogen oxides | 25.0 | | |
| | Sulfur oxides | 80.0 | | |
| | Particulate matter (PM ₁₀) | 80.0 | | |
| | Carbon monoxide | 500.0 | | |
| | Lead | 3.2 | | |
| | Asbestos | 0.03 | | |
| | Beryllium | 0.002 | | |
| | Mercury | 0.5 | | |
| | Vinyl chloride | 5.0 | | |
| | Fluorides | 15.0 | | |
| | Sulfuric acid mist | 35.0 | | |
| | Hydrogen sulfide | 50.0 | | |
| | Total reduced sulfur compounds | 50.0 | | |
| | Reduced sulfur compounds | 50.0 | | |
| Modeling Limits | Modeled emissions impact shall not cause or make worse the violation of an ambient air quality standard. [2:1 500.] | | Substantiate with modeling that new facility or modification will not cause increase in air quality concentration as specified below. [1303 (b)] | |
| | | | Air Contaminant | Allowable Change |
| | | | NOx, 1-hour average | 20 µg /m ³ |
| | | | NOx, Annual Average | 1 µg /m ³ |
| | | | CO, 1-hour average | 1,100 µg /m ³ |
| | | | CO, 8-hour average | 500 µg /m ³ |
| | | | PM ₁₀ , 24-hour average | 2.5 µg /m ³ |
| | | | PM ₁₀ , Annual Geometric Mean | 1 µg /m ³ |
| | | | Sulfate, 24-hour Average | 1 µg /m ³ |

Table 15: Comparison of PSD Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|--|--|
| Rule Number - Title | Rule 2:28 - Prevention of Significant Deterioration (this rule adopts the requirements of 40 CFR 52.21) | Regulation XVII - Prevention of Significant Deterioration (based on this rule, the District was delegated the 40 CFR 52.21 program) |
| Purpose | Establish preconstruction review requirements for new and modified stationary sources for use of BACT, analysis of air quality impacts, and to ensure that operation of such sources does not interfere with attainment of ambient air quality standards. | To ensure that air quality in clean-air areas does not significantly deteriorate, while maintaining a margin for future industrial growth. [1701(a)] |
| Applicability | Applies to preconstruction review of stationary sources that emit attainment air contaminants greater than 250 tons/year or 100 tons/year if the facility is one of the 28 source categories identified in the regulation. Also applies to modifications at existing major stationary sources that result in a significant emission increase of attainment air contaminants. The following are the significance levels: CO 100 tons/year, SOx 40 tons/year, NOx 40 tons/year, PM ₁₀ 15 tons/year, VOCs 40 tons/year, hydrogen sulfide 10 tons/year, total reduced sulfur 10 tons/year. [40 CFR 52.21] | Applies to preconstruction review of new major stationary sources that emit attainment air contaminants greater than 250 tons/year or 100 tons/year if the facility is one of the 28 source categories identified in the regulation. Also applies to modifications at existing major stationary sources that result in a significant emission increase of attainment air contaminants. [1701(b)] The following are the significance levels: CO 100 tons/year, SOx 40 tons/year, NOx 40 tons/year, PM ₁₀ 15 tons/year, VOCs 40 tons/year, hydrogen sulfide 10 tons/year, total reduced sulfur 10 tons/year. [1702] |
| Requirements | The subject source shall be constructed using BACT. In addition, the modeled air quality impacts will not cause violation of ambient standards. Continuously monitor ambient air quality in project impact area for one year before submitting permit application. Provide analysis of impairment to visibility, soil, and vegetation. [40 CFR 52.21] | The subject source shall be constructed using BACT. In addition, the modeled air quality impacts will not cause violation of ambient standards. Continuously monitor ambient air quality in project impact area for one year before submitting permit application. Provide analysis of impairment to visibility, soil, and vegetation. [1703] |

Table 16: Comparison of Visible Emissions Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|--|--|
| Rule Number - Title | Rule 3:2 - Specific Air Contaminants | Rule 401 - Visible Emissions |
| Requirements | No discharge of contaminants from any single source in amounts greater than Ringelmann No. 2 / 40% opacity [3.2] | Do not discharge into the atmosphere from any single emission source any air contaminant as dark as Ringelmann No. 1 or darker. [401(b)] |

Table 17: Comparison of Nuisance Regulations Applicable to MSWLFs in Two AQMDs

| Requirements | Shasta County | South Coast |
|---------------------|----------------------|--|
| Rule Number - Title | No Regulation | Rule 402 - Nuisance |
| Requirements | | Do not discharge from any source quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public, or that endanger the comfort, repose, health, or safety of the public, or that cause or have a natural tendency to cause injury or damage to business or property. [402] |

Appendix C

Summary of State of California Regulations

Table 18: Division 2 (Solid Waste) of Title 27 (Environmental Protection)*Explanatory notes are at end of table.*

| Section | Category | Brief Description |
|--|--|---|
| Chapter 1—General Article 1—Purpose, Scope, and Applicability of This Subdivision | | |
| 20005 | CIWMB - Purpose, Scope, and Applicability of CIWMB Standards | CIWMB standards protect public health and safety and the environment and do not address air or water quality aspects of the environment that are regulated by other state or local agencies and apply to active, inactive, closed, or abandoned disposal sites. |
| 20012 | SWRCB - Reliance Upon CIWMB Requirements | Where necessary to protect water quality, RWQCB may implement and cite as evidence of violation standards promulgated by the CIWMB in coordination with the EA or CIWMB. |
| 20014 | CIWMB - Reliance Upon SWRCB Requirements | Where necessary to protect aspects of the public health and safety and the environment, other than water quality, the EA may implement and cite as evidence of violation standards promulgated by the RWQCB in coordination with the RWQCB and the CIWMB. |
| 20030 | CIWMB - Authority | "No provisions in this Division shall limit the CIWMB's right to exercise the discretion vested in it by law. EAs are not limited or restricted from promulgating enactments as long as they are consistent with this Division." |
| 20040 | CIWMB - Compliance with Laws and Regulations | These standards do not relieve owners, operators, or designers from the obligation of obtaining all required permits, licenses, or other clearances, and complying with all orders, laws, regulations, or other requirements of other approvals, regulatory or enforcement agencies, such as, but not limited to, the DTSC, local health entities, water and air quality control boards, local land use authorities, fire authorities, etc. |
| 20050 | CIWMB - Purpose, Intent | Purpose is to promote the health, safety, and welfare of people of the State of California and to protect the environment by establishing minimum standards for the handling and disposal of solid wastes at disposal sites. |
| 20060 | CIWMB - Applicability of Federal Subtitle D Related Standards to Small Landfills | MSWLF units that meet the conditions of 40 CFR 258.1(f)(1) and received waste after 9 October 1991 and stopped before 9 October 1997 are exempt from 40 CFR 257 and 258 requirements except final cover (Section 21140 and other applicable requirements in Chapters 3 and 4 of Title 27); MSWLF units that receive 20 tons per day or less of MSW may be allowed alternative daily cover and gas monitoring requirements. |
| 20080 | SWRCB - General Requirements | Unless otherwise specified, alternatives to construction of prescriptive standards contained in the SWRCB - promulgated regulations may be considered. Presents conditions for alternatives. |
| 20090 | SWRCB - Exemptions | Presents conditions for exemption of the following activities from the SWRCB-promulgated provisions of this subdivision: sewage, wastewater, underground injection, RWQCB cleanup actions, gas condensate, soil amendments, drilling waste, reused materials, and fully enclosed units. |
| 20164 | Combined CIWMB and SWRCB Technical Definitions | This section contains the SWRCB's and the CIWMB's technical definitions, combined and listed in alphabetical order (see source regulations for specific definitions). Each agency is responsible for adopting its own definitions within this combined listing. Unless otherwise stated in a given regulation, it is the intent of the SWRCB and CIWMB that each agency's definitions function for the other agency. |

Table 18, continued

| Section | Category | Brief Description | | | |
|---|--|---|---------------------------------|--|---------------------------------|
| Chapter 3—Criteria for All Waste Management Units, Facilities, and Disposal Sites Subchapter 2—Siting and Design Article1—CIWMB—General | | | | | |
| 20180 | CIWMB- Owner and Operator | Responsibility for compliance with the standards in this chapter shall rest with both the owner and the operator. If specifically designated, the operator is considered to have prime responsibility for compliance; however, this does not relieve the owner of the duty to take all responsible steps to assure compliance with these standards and any assigned conditions. | | | |
| 20182 | CIWMB - Change of Ownership | When the title to a disposal site is transferred to another person, the previous owner shall notify the new owner of the existence of these standards and the conditions assigned to assure compliance. | | | |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 2—Siting and Design Article 2—SWRCB—Waste Classification and Management | | | | | |
| 20200 | Applicability and Classification Criteria | Dedicated units required for certain wastes; wastes containing free liquids shall not be discharged to Class II waste management units (WMUs); liquids or semi-solid waste shall not be discharged to Class III landfills. | | | |
| 20210 | Designated Waste | Shall be discharged only at Class I WMUs or at pre-approved Class II WMUs. | | | |
| 20220 | Non-Hazardous Solid Waste | Defines non-hazardous waste and allows classified units to receive it, with some limitations. Requirements for dewatered sludge or water treatment sludge. | | | |
| 20230 | SWRCB-Inert Waste | Inert Waste does not need to be discharged at classified units. | | | |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 2—Siting and Design Article 3—Waste Management Unit, Facility, or Disposal Site Classification and Siting | | | | | |
| 20240 | SWRCB - Classification and Siting Criteria | A waste management facility can consist of several WMUs each with a different classification. Waste to be 5 ft above highest anticipated underlying groundwater. Foundation must be capable of supporting structures and waste. | | | |
| 20250 and 20260 | | 20250. SWRCB - Class II ⁵ WMUs for Designated Waste | | 20260. SWRCB - Class III ⁵ Landfills for Non-Hazardous Solid Waste | |
| | | New | Reclassification | New | Reclassification |
| | Geologic Setting | Substan- tial isolation from ground- water. | As for new Class II WMUs. | Adequate separation from groundwater; characteristics other that hydraulic conductivity will be considered. | As for New Class III Landfills. |
| | Flooding | Prevent inundation or washout due to floods with a 100-year return period. | | | |

Table 18, continued

| Section | Category | Brief Description | | | |
|---|--|---|--|---|--|
| | Ground Rupture | 200 ft Setback from known Holocene faults. | Exempt ² , except that expansions are as for new Class II WMUs. | Not located on known Holocene fault. | Exempt ² , except that expansions are as for new Class III Landfills. |
| | Tidal Waves ¹ | No siting restriction ² | | | |
| 20270 | CIWMB-Location Restrictions: Airport Safety | Design and operation of an MSWLF located within 10,000 feet, or within 5,000 feet depending on the specified aircraft, of any airport runway end used by specified aircraft shall not pose a bird hazard to the aircraft. There must be notification to the affected airport and the Federal Aviation Administration (FAA) of MSWLFs located within a five-mile radius. | | | |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 2—Siting and Design Article 4—SWRCB—Waste Management Unit Construction Standards ³ | | | | | |
| 20310 | General Construction Criteria | Class II WMUs shall be designed and constructed to prevent migration of wastes to adjacent geologic materials. Class III landfill containment structures should prevent degradation of water of the state. | | | |
| 20320 | General Criteria for Containment Structures | Clay liners are to be made of materials of which at least 30 percent passes the No. 200 U.S. Standard Sieve, fine-grained soil with a significant clay content and without organic matter. | | | |
| | | Class II MSW Landfill | | Class III MSW Landfill | |
| | Clay Liner ⁴ | Special ⁵ , min. 2 ft thick and at least 90% relative compaction | | Special ⁵ , min. 1 ft thick and at least 90% relative compaction | |
| | Synthetic Liner | Special ⁵ , min. 40 mil | | Special ⁵ , min. 40 mil | |
| | Leachate Collection and Removal System | Special ⁵ , required | | Special ⁵ , required if liner or accept water treatment sludge | |
| | Interim Cover | Required | | Required | |
| | Cutoff Walls | 1x10 ⁻⁶ cm/s ⁶ | | 1x10 ⁻⁶ cm/s ⁶ , if required | |
| | Grout Curtains | 1x10 ⁻⁶ cm/s | | 1x10 ⁻⁶ cm/s, if required | |
| | Capacity of Precip. and Drainage Control Facilities (Design Storm) | 1000-year, 24-hour precipitation | | 100-year, 24-hour precipitation | |
| | Seismic Design | Withstand maximum credible earthquake (MCE) | | Withstand maximum probable earthquake (MPE) | |
| 20323 | CQA Plan | Construction of all liner and final cover systems to be in accordance with a CQA Plan. | | | |
| 20324 | CQA Requirements | Performance standards for professional qualifications, documentation, laboratory testing, and materials. | | | |
| 20330 | Liners | Requirements of clay liners, flexible membrane liners, lined area, surface impoundment with replaceable liner. | | | |

Table 18, continued

| Section | Category | Brief Description |
|--|--|---|
| 20340 | Leachate Collection and Removal Systems | Requirements for design, placement, head buildup, clogging, standard and alternative, leachate handling and production rate. |
| 20360 | Subsurface Barriers | Requirements for cutoff walls or grout curtains, minimum 2 ft for clay materials, 40 mil for synthetic materials. |
| 20365 | Precipitation and Drainage Controls | Performance standards to limit ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping. |
| 20370 | Seismic Design | Class II WMUs to withstand MCE; Class III Landfills to withstand MPE. |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 3—Water Monitoring Article 1—SWRCB—Water Quality monitoring and Response Program for Solid Waste Management Units | | |
| 20380 | Applicability | Owners or operators shall detect, characterize, respond to releases to groundwater, surface water, or the unsaturated zone and shall maintain financial assurance for corrective action for known or foreseeable releases from the unit. |
| 20385 | Required Programs | Includes detection monitoring program (DMP), evaluation monitoring program (EMP), and corrective action program (CAP). |
| 20390 | Water Quality Protection Standard (Water Standard) | Established in the WDRs; consists of constituents of concern, concentration limits, Point of Compliance and all Monitoring Points. ⁷ |
| 20395 | Constituents of Concern | In the WDRs, all waste constituents, reaction products, and hazardous constituents reasonably expected. |
| 20400 | Concentration Limits | Requirements for concentration limits background, and concentration limits greater than background |
| 20405 | Monitoring Points of Compliance | Defines Point of Compliance at which the Water Standard applies. |
| 20410 | Compliance Period | The active life of the unit plus the closure period; minimum time to conduct water quality monitoring |
| 20415 | General Water Quality Monitoring and System Requirements | Present groundwater and surface water monitoring system requirements for DMP, EMP, and CAP, alternate background locations, drill's logs, sampling and analytical methods, statistical data analysis methods, data collection and analysis. |
| 20420 | Detection Monitoring Program (DMP) | Monitoring parameters to meet requirements of SWRCB Resolution 93-62, 5-year COC monitoring, release notification and response, monitoring system changed. |
| 20425 | Evaluation Monitoring Program (EMP) | Monitoring parameters to meet requirements of SWRCB Resolution 93-62, ongoing monitoring, 5-year COC monitoring, data records, and report changes. |
| 20430 | Corrective Action Program (CAP) | Corrective action program to remediate releases from the unit and ensure that the discharger achieves compliance with the Water Standard according to monitoring, schedule, and reporting requirements set forth herein. |

Table 18, continued

| Section | Category | Brief Description |
|---|---|--|
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 4—Criteria for Landfills and Disposal Sites Article 1—CIWMB—Operating Criteria | | |
| 20510 | Disposal Site Records | <p>Records of weights and volumes accepted in a form approved by EA.</p> <p>Excavations that may affect site or off-site safety.</p> <p>Daily logbook of fires, landslides, earthquake damage, etc.</p> <p>Personnel training.</p> <p>Notification to EA, local health agency, fire authority of operator or responsible party.</p> <p>Disposal site records, including MSWLF unit records, shall be available for inspection by authorized representatives of the EA, local health agency, and the CIWMB during normal business hours and retained near the site in an operating record or in an alternative location approved by the EA.</p> |
| 20515 | MSWLF Unit Records | <p>Any location restriction demonstration (required under Section 20270 for airport safety).</p> <p>Inspection records, training procedures, notification procedures required under Section 20870 (hazardous waste or PCBs).</p> <p>Gas monitoring results.</p> <p>Closure and post-closure maintenance plans.</p> <p>Cost estimates and financial assurance documents.</p> <p>Any demonstration of compliance with the small community exemption.</p> <p>EA may set alternate schedules for record keeping and notification requirements.</p> |
| 20517 | Documentation of EA Approvals, Determinations, and Requirements | Shall be documented by the operator and placed in the operating record. |
| 20520 | Signs | <p>Each point of access from a public road shall be posted with an easily visible sign that indicates facility name and other information.</p> <p>If the facility is open to the public, an easily visible sign indicating name of site operator, telephone number, hrs of operation, shall be posted at the primary entrance.</p> <p>Easily visible sign indicating schedule of charges and general types of materials that will be accepted or that will not be accepted.</p> <p>If open to public, easily visible signs that direct traffic to areas where materials may be disposed.</p> <p>Additional signs and/or measures may be required at a disposal site by the EA to protect personnel and public health and safety.</p> |
| 20530 | Site Security | Perimeter barriers, topographic constraints, or fencing as appropriate to prevent unauthorized access by persons and vehicles. The EA may also require that other areas of the site be fenced to create an appropriate level of security. |
| 20540 | Road | Design and maintain roads to minimize dust and tracking of material onto public roads, allow vehicle access and unloading during inclement weather. |

Table 18, continued

| Section | Category | Brief Description |
|---|--------------------------------|---|
| 20550 | Sanitary Facilities | Provide adequate number of toilets and handwashing facilities for personnel at the facility as approved by EA. |
| 20560 | Drinking Water Supply | Make available safe and adequate drinking water for site personnel. |
| 20570 | Communications Facilities | For quick response to emergencies. |
| 20580 | Lighting | Where operated during darkness, adequate to ensure safety and to monitor effectiveness of operations and approved by the EA. |
| 20590 | Personnel Health and Safety | Wear and use appropriate safety equipment as required by the EA |
| 20610 | Training | Required in subjects pertinent to site operation and maintenance; a record of training shall be placed in the operating record. Training subjects include site operation and maintenance, hazardous materials recognition and screening, and heavy equipment operations, with emphasis on safety, health, environmental controls, and emergency procedures. |
| 20615 | Supervision | Provide adequate supervision of a sufficient number of qualified personnel to ensure proper operation of the site in compliance with all applicable laws, regulations, permit conditions, and other requirements. |
| 20620 | Site Attendant | Shall be present during public operating hours, or site shall be inspected by the operator, on a regular scheduled basis, as determined by the EA. |
| 20630 | Confined Unloading | To as small an area as possible to accommodate the number of vehicles using the area without resulting in traffic, personnel, or public safety hazards. Waste materials shall normally be deposited at the toe of the fill, or as otherwise approved by the EA. |
| 20640 | Spreading and Compacting | Solid waste shall be spread and compacted in layers with repeated passages of the landfill equipment to minimize voids within the cell and maximize compaction. Loose waste shall not exceed a depth of approximately 2 feet before compaction. Must be completed as rapidly as possible unless otherwise approved by the EA. |
| 20650 | Grading of Fill Surfaces | Covered surfaces of the disposal area shall be graded to promote lateral runoff of precipitation and to prevent ponding. Grades shall be established of sufficient slopes to account for future settlement of the fill surface. Other effective maintenance methods may be allowed by the EA. |
| 20660 | Stockpiling | Stockpiled material unsuitable for cover shall be placed so as not to cause problems or interfere with unloading, spreading, compacting, access, safety, drainage, or other operations. |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 4—Criteria for Landfills and Disposal Sites Article 2—CIWMB—Daily and Intermediate Cover | | |
| 20670 | Availability of Cover Material | Must provide a sufficient quantity of cover material of sufficient quality. If on-site sources of cover material are insufficient, must demonstrate to the EA availability of cover material. |

Table 18, continued

| Section | Category | Brief Description |
|---|--|---|
| 20680 | Daily Cover | <p>Minimum of 6 inches of compacted earthen material cover at end of operating day.</p> <p>Earthen material may include contaminated soil and soil with contaminants other than petroleum hydro- carbons that has been approved for use as landfill daily cover by the RWQCB and other government agencies from which approval is required.</p> <p>MSWLFs that accept 20 tons or less per day may establish alternative frequencies for daily cover with approval from the EA and the CIWMB. The EA and CIWMB may condition, limit, suspend, or terminate an operator's use of an alternative monitoring frequency if it is determined that the alternative frequency would cause harm to public health and safety or the environment.</p> |
| 20690 | Alternative Daily Cover | <p>May be approved by the EA and CIWMB if demonstrated that alternative material and thickness control vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.</p> <p>Shall maintain a record of waste-derived alternative daily cover including description of type and quantity of waste.</p> <p>Site specific demonstration projects are not required for the following materials used as specified and in accordance with other requirements of this section: geosynthetic fabric or panel products, foam, processed green material, sludge and sludge-derived materials, ash and cement kiln dust materials, treated auto shredder waste, contaminated sediment, compost materials, construction and demolition wastes, shredded tires. Restrictions on use of these materials are given.</p> |
| 20695 | Cover Performance Standards | Section provides performance standards to address vectors, fires, and blowing litter that may be required by the EA. |
| 20700 | Intermediate Cover | <p>Compacted earthen material of at least twelve (12) inches shall be placed on all surfaces of the fill where no additional solid waste will be deposited within 180 days to control vectors, fires, odors, blowing litter, and scavenging.</p> <p>Alternative materials of alternative thickness for intermediate cover may be approved by the EA with concurrence by the CIWMB.</p> |
| 20705 | SWRCB-Standards for Daily and Intermediate (Interim) Cover | Shall be designed and constructed to minimize percolation of liquids through wastes; material shall match classification for criteria for wastes that can be discharged to that landfill. |
| <p align="center">Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 4—Criteria for Landfills and Disposal Sites Article 3—CIWMB—Handling, Equipment, and Maintenance</p> | | |
| 20710 | Scavenging, Salvaging, and Storage | <p>Scavenging is prohibited at any disposal site.</p> <p>Salvaging as approved by the EA shall be conducted in a planned and controlled manner.</p> <p>Salvaged materials generated on site or imported shall be placed for storage in a specific area in a specified, clearly identifiable area segregated from the working face Limits on volume and storage time to be approved by the EA.</p> |
| 20720 | Non-Salvageable Items | Materials capable of impairing public health shall not be salvaged unless approved by the EA, and the local health agency. |
| 20730 | Volume Reduction and Energy Recovery | Volume reduction (incineration, baling, shredding, composting, etc.) may be used as approved by the EA. |

Table 18, continued

| Section | Category | Brief Description |
|---|---------------------------------|--|
| 20740 | Equipment | Shall be adequate in type, capacity, and number and sufficiently maintained to permit the site operation to meet requirements of these standards. |
| 20750 | Site Maintenance | Operator shall implement a preventative maintenance program to monitor and promptly repair or correct deteriorated or defective conditions with respect to requirements of the CIWMB standards and conditions established by the EA. |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 4—Criteria for Landfills and Disposal Sites Article 4—CIWMB—Controls | | |
| 20760 | Nuisance Control | Each disposal site shall be operated so as not to create a public nuisance. |
| 20770 | Animal Feeding | Animals used for human consumption may not be fed solid waste. Livestock may graze away from operating areas. |
| 20780 | Open Burning and Burning Wastes | Open burning is prohibited. Burning wastes must be deposited safely and extinguished if received. |
| 20790 | Leachate Control | Operator shall ensure that leachate is controlled to prevent contact with the public. |
| 20800 | Dust Control | Requires measures to minimize creation of dust and to prevent safety hazards due to obscured visibility. |
| 20810 | Vector and Bird Control | Requires control or prevention of the propagation, harborage, or attraction of flies, rodents, or other vectors, and to minimize bird problems. |
| 20820 | Drainage and Erosion Control | Drainage system shall be designed and maintained to ensure integrity of roads, structures, and gas monitoring and control systems; prevent safety hazards; and prevent exposure of waste. |
| 20830 | Litter Control | Litter shall be controlled, routinely collected, and disposed of properly. |
| 20840 | Noise Control | Noise shall be controlled to prevent health and safety hazards to persons using the site and to nearby residents. |
| 20860 | Traffic Control | Traffic flow shall be controlled to minimize interference and safety problems with traffic on adjacent public streets or roads, on-site safety hazards, and interference with site operations. |
| 20870 | Hazardous Wastes | Requires a program for detecting and disposing of regulated hazardous wastes, including PCBs, to prevent the disposal of hazardous waste, including random inspections, records of inspections, training to recognize hazardous waste, and notification of the EA, DTSC, or RWQCB if a regulated hazardous or PCB waste is discovered. A site cannot accept a hazardous waste unless the site has been approved for the particular waste involved. |
| 20880 | Medical Waste | Medical waste, unless treated and deemed to be a solid waste, shall not be accepted for disposal at a site. |
| 20890 | Dead Animals | Dead animals may be accepted if allowed by local regulations and shall be covered immediately or at a frequency approved by the EA. |
| 20900 | Air Criteria | Requires that the WMUs do not violate any applicable requirements developed under a State Implementation Plan (SIP) approved or promulgated by the USEPA Administrator. |

Table 18, continued

| Section | Category | Brief Description |
|---|---|---|
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 4—Criteria for Landfills and Disposal Sites Article 6—CIWMB—Gas Monitoring and Control at Active and Closed Disposal Sites | | |
| 20918 | Exemptions | Gives general conditions based on amount, nature, and age of refuse; projected gas generation, remoteness of facility. Requires 5-year review of status. The EA may extend or terminate exemptions. |
| 20919 | Gas Control | Requires a monitoring program if the EA, local fire control authority, or CIWMB believes a hazard or nuisance may be created by landfill decomposition gases. Program shall not be discontinued until authorized by the requiring agency. |
| 20919.5 | Explosive Gases Control | Specifies concentration limits for methane gas and routine methane monitoring program. Monitoring is based on certain specified factors; and the limits for gas are for on-site structures and at the property boundary. The EA with concurrence from the CIWMB may establish alternative frequencies for MSWLFs that accept 20 tons or less per day. |
| 20920 | Scope and Applicability for Gas Monitoring and Control Requirements during Closure and Post-Closure | Performance requirements and minimum substantive requirements for landfill gas (LFG) monitoring and control as it relates to proper closure, post-closure maintenance, and ultimate reuse of solid waste disposal facilities (SWDF). |
| 20921 | Gas Monitoring and Control during Closure and Post-Closure | Specifies concentration limits for methane gas and routine methane monitoring program. |
| 20923 | Monitoring | Requirements related to design of the gas monitoring network. |
| 20925 | Perimeter Monitoring Network | Specifies location, spacing (<1000 ft), depth (max depth of waste within 1000 ft), well construction, and record-keeping. |
| 20931 | Structure Monitoring | Gas monitoring network shall include provisions for monitoring on-site structures. |
| 20932 | Monitored Parameters | Requires monitoring for methane and trace gases, if required by the EA. |
| 20933 | Monitoring Frequency | Requires minimum of quarterly monitoring; more frequent monitoring may be required. |
| 20934 | Reporting | Required within 90 days of sampling; required elements are listed. |
| 20937 | Control | Requires steps to protect public health and the environment, notification within 5 days, verification of results, a gas control system. |
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 5—Closure and Post-Closure Maintenance Article 1—General Standards for All Waste Management Units | | |
| 20950 | SWRCB - General Standards | Requires a final closure plan, final cover to minimize infiltration of water into waste, two permanent survey monuments, vegetation, and financial assurance. |

Table 18, continued

| Section | Category | Brief Description |
|---|--|---|
| Chapter 3—Criteria of All Management Units, Facilities, and Disposal Sites Subchapter 5—Closure and Post-Closure Maintenance Article 2—Closure and Post-Closure Maintenance Standards for Disposal Sites and Landfills | | |
| 21090 | SWRCB - Closure and Post- Closure Maintenance Requirements for Solid Waste Landfills | Specifies final cover elements, including no steeper than 1.75:1, minimum 15-ft-wide bench for every 50 ft of vertical height, alternate cover provisions, 2-ft-thick foundation layer, low-hydraulic-conductivity layer, vegetative layer, cover maintenance plan, grading requirements, post-closure duties, final cover surveys, 5-year iso-settlement maps. |
| 21099 | CIWMB – Purpose | Defines “closed” as the status of a disposal site that either 1) has received a closure certification or 2) has completed all closure activities before 18 November 1990. “Closing” is the period that begins when implementation of an approved final closure or partial final closure plan begins and that ends when implementation of an approved final closure or partial closure plan is complete. |
| 21100 | CIWMB - Scope and Applicability | Describes sites to which the performance standards and minimum substantive requirements for proper closure, post-closure maintenance, and ultimate reuse of disposal sites apply. |
| 21110 | CIWMB - Time Frames for Closure | Must begin closure activities within 30 days and complete within 180 days. Allows for extension if justified. |
| 21120 | CIWMB - Partial Final Closure | Allows for placement of final cover, final grading, drainage control, revegetation, and installation of environmental monitoring and/or control systems for portions of a landfill consistent with the approved closure and post-closure maintenance plan. |
| 21130 | SWRCB - Emergency Response | Requires a written post-closure emergency response plan that describes actions to be taken. |
| 21132 | SWRCB – Landfill Emergency Response Plan Review | Requires an emergency response plan to review in coordination with the Enforcement Agency. New response shall also be coordinated between the RWQCB and the EA to assure the proposed response does not pose a threat to water quality. |
| 21135 | CIWMB - Site Security | Requires signs, newspaper notice, and restriction to points of site access. |
| 21137 | CIWMB - Structure Removal | Site structures to be dismantled, removed, and disposed of properly, either in the landfill or at another site. |
| 21140 | CIWMB - Final Cover | General objectives: control vectors, fire, odor, litter, and landfill gas migration. |
| 21142 | CIWMB - Final Grading | General requirements, including 5-year iso-settlement maps. |
| 21145 | CIWMB - Slope Stability | General requirement to ensure slope integrity under static and dynamic conditions. |
| 21150 | CIWMB - Drainage and Erosion Control | General requirement to ensure integrity of post-closure land uses, roads, and structures. |
| 21160 | CIWMB - Landfill Gas Control and Leachate Contact | General requirement to implement and maintain gas control and prevent leachate contact. |
| 21170 | CIWMB - Recording | File a detailed description of the closed site, including a map, with the Recorder of the County. |

Table 18, continued

| Section | Category | Brief Description |
|--|--|--|
| 21180 | CIWMB - Post-Closure Maintenance | Requires maintenance and monitoring for a period of not less than 30 years after closure. |
| 21190 | CIWMB - Post-Closure Land Use | Conditions for construction on top of landfilled areas and within 1000 ft of the disposal area. |
| 21200 | CIWMB - Change of Ownership during Closure or Post-Closure Maintenance | Requires within 30 days notice to the EA of change in title and contact information for new owner. |
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 1. CIWMB - General | | |
| 21440 | CIWMB – Scope/Applicability/Coordination | Sets forth the method of application for a Solid Waste Facility Permit (SWFP) and procedures for review and action on the application package plus application for permits, reinstatement of permits after disciplinary actions, periodic revision of permits, exemptions from the application and permit requirements, and updating of certain application of information. The EA shall coordinate all permitting aspects for disposal sites, including review of the JTD, with the RWQCB as appropriate. |
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 3—Development of Waste Discharge Requirements (WDRs) and Solid Waste Facility Permits Article 1—General | | |
| 21563 | CIWMB – Scope | Sets forth the method of application for a full SWFP and procedures for review and action on the application package. Includes definition of terms. |
| 21565 | CIWMB – Exemptions from Requirements of a Permit | After a public hearing, the EA may grant an exemption from a permit if the exemption is not against the public interest, the quantity of solid waste is insignificant, and the waste poses no significant threat to human health, safety, or the environment, if the facility is doing research funded primarily by government grants, receives inert, construction wastes placed by agencies on a short-term basis, receives drilling mud that does not contain significant quantities of hazardous or toxic materials on a short-term basis, is an unclassified WMU as defined by the SWRCB, is a farm or ranch disposal site for one- or two-family use, is a Resource Recovery facility intended for demonstration and not for profit, is used exclusively for one of several specific purposes, or is an evaporation pond for disposing of salts from oil and geothermal drilling operations. |
| 21565.5 | CIWMB – Filing Requirements for Exemptions from Solid Waste Facility Permit (SWFP) | Information containing applicable sections of a Report of Facility Information (RFI)/Joint Technical Document (JTD) to establish if an exemption should be granted must be filed with the EA. |

Table 18, continued

| Section | Category | Brief Description |
|---|--|--|
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 3—Development of Waste Discharge Requirements (WDRs) and Solid Waste Facility Permits Article 2—CIWMB—Applicant Requirements | | |
| 21570 | CIWMB – Filing Requirements | Operators shall submit a full SWFP and WDRs in duplicate to the EA , one copy of the application form and JTD to the RWQCB, and shall demonstrate financial assurances to the CIWMB pursuant to Chapter 6 of Title 27 of the CCRs. Must include fee required by the EA, information to allow thorough evaluation of environmental effect of the facility, completed application forms that are specified, relationship to the countywide siting element, completeness determination of Preliminary or Final Closure/Post-Closure Maintenance Plan, current documentation of acceptable funding levels for financial assurance mechanism, current documentation of compliance with operating liability requirements, and Land Use and/or Conditional Use Permits. |
| 21580 | CIWMB – Submittal of an Incomplete Application Package | Applicant may request that the EA accept an incomplete application package under specified conditions. |
| 21585 | SWRCB – Joint Technical Document (JTD) | JTD addresses all post-CUP permitting agency requirements. ROWD to be submitted in the form of a JTD to the RWQCB, the CIWMB, the EA, and the AQMD or APCD. Discharger may organize the JTD in any manner to maximize readability and compactness of the document, with some suggestions for integration. Requirements for JTD addenda and JTD index. RWQCB to review for consistency with WDRs. |
| 21590 | CIWMB – Joint Technical Document for Disposal Facilities | Operator required to submit a Report of Disposal Site Information (RDSI), closure/post-closure maintenance plan, and/or a ROWD or any other report that addresses similar regulatory concerns may address those requirements under one JTD. Gives options for submitting the JTD, including requirements for a JTD index for use by the EA. |
| 21600 | CIWMB – Report of Disposal Site Information (RDSI) | To obtain a SWFP, RDSI to be submitted for each disposal site to present information to determine whether a permit should be issued and to provide information to be included within the permit if applicable. RDSI contents are specified under the following headings: general, waste classification and management, waste management unit classification and siting, design and construction standards for all sites, operating criteria, cover, handling, controls, and compilation of approvals. |
| 21610 | CIWMB – Amendments to Application Package | After the application package has been submitted and before issuance or denial of the permit or alteration thereof, the applicant shall promptly notify the EA of any changes in the information required in the package. |
| 21615 | CIWMB – Completeness Appeal | Applicant may appeal decision by the EA that application is not complete within 15 days of the date of the notification. |
| 21620 | CIWMB – Change in Operation | An amendment to the RFI must be made at least 150 days before making a significant change in the design or operation of the facility and shall be accompanied by an application form. |

Table 18, continued

| Section | Category | Brief Description |
|---|--|---|
| 21630 | CIWMB – Change of Owner, Operator, and/or Address | Must notify the EA and the CIWMB 45 days before the anticipated transfer, including names and address(es) where notices can be sent and new phone number(s) of new operators. Requires documentation of financial assurance and operating liability requirements, signed affidavit regarding compliance with permits and SWFP terms, amendments to the RFI that reflect change in operator/owner address, and submittal of a form specified by CIWMB within 7 days after the change is effective. |
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 3—Development of Waste Discharge Requirements (WDRs) and Solid Waste Facility Permits Article 3—CIWMB—Enforcement Agency (EA) Requirements | | |
| 21650 | CIWMB – EA Processing Requirements | The EA shall stamp application with date of receipt, evaluated and stamped as complete, accept or reject the package within 30 days of receipt, notify the RWQCB and the CIWMB of its determination, notify the operator, CIWMB, and RWQCB if the package is not complete, accept an incomplete application package if requested, send documents specified herein to the CIWMB within 55 days after receipt of the package |
| 21660 | CIWMB – Public Notice and Comment; Record keeping Requirements | The EA shall maintain a current list of pending applications at its office, mail written notice of an application to every person who has submitted a written request for such notice, and retain written public comments on an application. |
| 21665 | CIWMB – Processing Report of Facility Information (RFI) Amendments | Procedures for submitting an RFI amendment and application package that shall contain only those items that have changed, are proposed to change, or as otherwise specified by the EA. Presents specific criteria for the EA approving and filing the amendment to the RFI. |
| 21670 | CIWMB – Change of Owner, Operator, and/or Address | Procedures for changing name and address of owner, operator, or facility name following determination by the CIWMB and the EA that the anticipated owner/operator satisfies requirements. Gives time limits for giving notice. |
| 21675 | CIWMB – Review of Permits | Provides for review of all full SWFPs at least once every five years, including time lines for the EA to give operator notice of upcoming review and submittal of permit review report to the CIWMB. |
| 21680 | CIWMB – Reinstatement of Suspended and Revoked Permits | A suspended permit is reinstated without further action on the date specified in the suspension or upon completion of specified acts. Revoked permits may be reinstated by application no less than one year after the effective date of revocation. Reinstated suspended and revoked permits require review every five years. Within one year, a person whose permit has been revoked may petition for reduction in penalty or request a hearing. |
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 3—Development of Waste Discharge Requirements (WDRs) and Solid Waste Facility Permits Article 3.1—CIWMB—CIWMB Requirements | | |
| 21685 | CIWMB – Proposed Permit; CIWMB Processing Requirements | The CIWMB shall stamp the proposed permit with the date of receipt at the time the envelope is opened, evaluate the package for specific items listed herein, and concur or object to the issuance of a permit within 60 days of receipt. |
| 21686 | CIWMB – Change in Owner, Operator, and/or Address | Within 20 days of receipt of notification, the CIWMB shall provide a written determination of the adequacy of the financial assurances and operating liability. |

Table 18, continued

| Section | Category | Brief Description |
|--|---|---|
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 3—Development of Waste Discharge Requirements (WDRs) and Solid Waste Facility Permits Article 4—SWRCB—Development of Waste Discharge Requirements | | |
| 21710 | Report of Waste Discharge (ROWD) and Other Reporting Requirements | General information to be provided: waste characteristics, geologic and climatologic characteristics of the WMU and the surrounding region, installed features, operation plans for waste containment, precipitation and drainage controls, and closure and post-closure maintenance plans. |
| 21720 | Waste Discharge Requirements | RWQCB shall adopt WDRs that implement the applicable provisions of this title. |
| 21730 | Public Participation | Requirements for notification of interested parties, notice; emergency actions are exempt. |
| 21740 | Waste Characteristics | Include a list of types, quantities, concentrations of wastes proposed to be discharged at each Unit. |
| 21750 | Unit Characteristics and Attributes to Be Described in the ROWD | Information to include potential impairment, support for proposed classification, topography, climatology, geology, engineering and chemical properties, stability analysis, MCE for Class II WMU and MPE for Class III Landfill, fault identification and proximity, hydrogeology, land and water use, preliminary closure plan. |
| 21760 | Design Report and Operations Plan | Include preliminary and as-built plans, monitoring system plans and rationale, inspection procedures |
| Chapter 4—Documentation and Reporting for Regulatory Tiers, Permits, WDRs, and Plans Subchapter 4—Development of Closure/Post-Closure Plans | | |
| 21769 | SWRCB - Closure and Post-Closure Maintenance Plan Requirements | To include an itemized cost analysis for first 30 years post-closure maintenance, maps, schedule, final treatment procedures, water quality protection as required by SWRCB Resolution No. 93-62, proposed post-closure land use, water balance analysis, water penetration detection method, final cover protection. |
| 21770 | CIWMB - Scope and Applicability | CIWMB requirements are additional to RWQCB water protection requirements. |
| 21780 | CIWMB - Submittal of Closure and Post-Closure Maintenance Plans | To be certified by a registered civil engineer (RCE) or certified engineering geologist (CEG); to include: updated cost estimates, preliminary closure and post-closure maintenance plans as part of JTD; final plans 2 yr. prior to anticipated date of closure; plans for partial final closure required 2 yr. before anticipated closure date. If immediate closure is necessary to protect public health, submittal schedule will be established by the EA. |
| 21790 | CIWMB - Preliminary Closure Plan Contents | To include a closure cost estimate, location maps, proposed post-closure land uses, estimation of closure date, closure activities (security, structure removal, final cover and grading, CQA, gas monitoring, erosion control) |
| 21800 | CIWMB-Final Closure Plan Contents | Includes elements as listed for preliminary closure plan plus detailed schedule for disbursement of funds for closure activities from a trust fund or enterprise fund. |
| 21810 | CIWMB - Final Closure Plan Contents for Clean Closure | General requirements for closure plan for solid waste landfills that will be closed by removing solid wastes and contaminated soils. |

Table 18, continued

| Section | Category | Brief Description |
|---|--|---|
| 21820 | CIWMB - Closure Cost Estimates | Requirements for cost estimates, to include: most expensive costs, for all activities anticipated for the scheduled closure, contingency of 20% to account for cost overruns; lists elements to be included. |
| 21825 | CIWMB - Preliminary Post-Closure Maintenance Plan Contents | Purpose is to establish a preliminary estimate for post-closure monitoring, maintenance, and inspection costs; includes a description of planned uses of the property and methods to maintain and monitor. |
| 21830 | CIWMB - Final Post-Closure Maintenance Plan Contents | To establish a cost estimate and to include emergency response plan, parties responsible for post-closure maintenance, planned property use, monitoring and control systems, operations and maintenance (O&M) plan, reporting. |
| 21840 | CIWMB - Post-Closure Maintenance Cost Estimates | Annual cost of maintenance and monitoring x 30 years for site security, final cover maintenance, vegetation maintenance, landfill gas monitoring and control, drainage and erosion control systems. |
| 21860 | CIWMB - Schedules for Review and Approval for Post-Closure Maintenance Plans | 30 days for agency to determine completeness, 60 days to complete a plan determined to be incomplete, 120 days for agency to review complete plan, 60 days to prepare a plan if deemed not approvable by the agency, 30 days for the CIWMB to receive approval letter from the EA and the RWQCB, 30 days for the CIWMB to approve. May not approve if substantive deficiencies in the plan or in financial mechanisms. |
| 21865 | CIWMB - Amendment of Closure and Post-Closure Maintenance Plan | Amendments to be submitted if change in operation or landfill design that would affect implementation of closure and/or post-closure maintenance plans, if change in year of closure, change in financial mechanism, updates in cost estimates to reflect changes in foregoing |
| 21870 | CIWMB - Implementation of Closure Plan | Shall adhere to schedules previously specified, shall not begin before closure/post-closure maintenance plan approved. The EA and the CIWMB shall conduct inspections. On the day closure plan begins to be implemented, the SWFP is null and void and provisions of the closure and post-closure maintenance plan are enforceable. This latter provision is proposed to be revised to more accurately reflect current statute. |
| 21880 | CIWMB - Certification of Closure | Requirements for submittal for approval a certification report by RCE or CEG with supporting documentation. |
| 21890 | CIWMB - Revision of Approved Plans for Closure and Post-Closure Maintenance | Significant changes to the closure and post-closure maintenance plans must be approved by the CIWMB and the RWQCB, with concurrence from the EA. |
| 21900 | CIWMB - Release from Post-Closure Maintenance | Operator may be released from post-closure after min. 30-year period upon demonstration and approval that the solid waste landfill no longer poses a threat to the public health and safety and the environment. |
| Chapter 5—Enforcement Article 4—Enforcement by Regional Water Quality Control Boards (RWQCB) | | |
| 22190 | SWRCB – Mandatory Closure (Cease and Desist Orders) | If RWQCB finds that early closure of a WMU unit is necessary to prevent (or curtail) violation of WDRs, it shall adopt a Cease and Desist Order that requires closure according to an approved closure and post-closure maintenance plan. |

Table 18, continued

| Section | Category | Brief Description |
|--|---|---|
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 1—Definitions for Financial Assurance Demonstrations and Requirements. | | |
| 22200 | CIWMB – Definitions | Includes definitions of terms used to describe financial assurance requirements. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 2—Financial Assurance Requirements Article 1—Financial Assurance for Closure | | |
| 22205 | CIWMB – Scope and Applicability | Operators of solid waste landfills must demonstrate the availability of financial resources to conduct closure activities at all disposal facilities that have been or will be operated on or after January 1, 1988. Operators shall comply with the requirements of this article upon application, issuance, amendment, modification, revision, or review of a SWFP, commencing the effective date of this Article (i.e., 18 June 1997). |
| 22206 | CIWMB – Amount of Required Coverage | Except as otherwise noted, financial responsibility shall be at least in the amount of the current closure cost estimate. |
| 22207 | SWRCB – Closure Funding Requirements | At Class II and Class III WMUs for which the CIWMB does not require a closure fund, the RWQCB shall require the discharger to establish an irrevocable closure fund (or provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB as beneficiary to ensure closure of each classified WMU in accordance with an approved plan. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 2—Financial Assurance Requirements Article 2—Financial Assurance for Post-Closure Maintenance | | |
| 22210 | CIWMB – Scope and Applicability | Operators must demonstrate the availability of financial resources to conduct post-closure maintenance activities at disposal facilities that operated on or after 1 January 1998. |
| 22211 | CIWMB – Amount of Required Coverage | Except as otherwise noted, financial responsibility shall be at least in the amount of the current post-closure cost estimate. |
| 22212 | SWRCB – Post-Closure Funding Requirements | At Class II and Class III WMUs for which the CIWMB does not require a closure fund, the RWQCB shall require the discharger to establish an irrevocable closure fund (or provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB as beneficiary to ensure post-closure maintenance of each classified WMU in accordance with an approved plan. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 2—Financial Assurance Requirements Article 3—Financial Assurance Requirements for Operating Liability | | |
| 22215 | CIWMB – Scope and Applicability | Operators must demonstrate adequate financial ability to compensate third parties for bodily injury and property damage prior to closure caused by facility operation commencing with application for issuance, amendment, modification, revision, or review of a SWFP as of 1 July 1992. |

Table 18, continued

| Section | Category | Brief Description |
|--|--|--|
| 22216 | CIWMB – Amount of Recovered Coverage | Requires specific amounts of coverage (generally \$1,000,000/occurrence plus \$1,000,000 per facility annual aggregate to a total of \$5,000,000 for 5 or more facilities) for compensating third parties for bodily injury and property damage caused by any accidental occurrences, including exposures to pollution. Additional limitations (e.g., coverage is exclusive of legal costs, coverage applies only to facilities in California, etc.) |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 2—Financial Assurance Requirements Article 4—Financial Assurance Requirements for Corrective Action | | |
| 22220 | CIWMB – Scope and Applicability | Operators must demonstrate availability of financial resources to conduct corrective action activities at landfills operating on or after 1 July 1991. |
| 22221 | CIWMB – Amount of Required Coverage | Operators must demonstrate financial responsibility to the CIWMB for initiating and completing corrective action for all known or reasonably foreseeable releases from the disposal facility in at least the amount of the current corrective action cost estimate reviewed and approved by the appropriate RWQCB based on a written cost estimate for hiring a third party to perform corrective action in accordance with the corrective action plan. Annual adjustment of the estimate for inflation is required, as well as increases or decreases in the estimate over time; CIWMB approval required for reduction in financial mechanism that demonstrates coverage. |
| 22222 | SWRCB – Corrective Action Funding Requirements | At Class II and Class III WMUs for which the CIWMB does not require financial assurances for corrective action, the RWQCB shall require the discharger to establish an irrevocable closure fund (or provide other means) pursuant to the CIWMB-promulgated sections of this chapter but with the RWQCB as beneficiary to ensure funds are available to address a known or reasonably foreseeable release from the WMU. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 3—Allowable Mechanisms Article 1—CIWMB—General Requirements for Mechanisms | | |
| 22225 | Minimum Closure and/or Post-Closure Maintenance and/or Reasonably Foreseeable Corrective Action Fund Balance Calculation | Sets forth requirements for trust or enterprise funds to demonstrate financial responsibility for closure and/or post-closure maintenance and/or reasonably foreseeable corrective action costs. Specifies information required by the anniversary date of the establishment of the fund, calculations of the minimum deposit. CIWMB may approve a change in anniversary date only once according to certain requirements. |
| 22226 | CIWMB – Minimum Fund Balance Calculation for Known Corrective Action | Sets forth requirements for trust or enterprise fund to demonstrate financial responsibility for known corrective action costs, including pay-in period, payment calculations, and conditions of termination. |
| 22227 | CIWMB – Substitution of Mechanisms | Allows operators to substitute alternate financial assurance mechanism(s) acceptable to the CIWMB as specified herein; requires approval of the CIWMB to cancel a financial assurance mechanism. |

Table 18, continued

| Section | Category | Brief Description |
|----------------|---|--|
| 22228 | CIWMB – Acceptable Mechanisms and Combination of Mechanisms | Lists acceptable financial mechanisms that are described in Article 2 of this Subchapter and restrictions on their use (e.g., the enterprise fund, government securities, local government financial test, and self-insurance and risk management mechanisms are acceptable only for disposal facilities operated by government agencies while the financial means test and guarantee mechanisms are acceptable only for disposal facilities operated by private firms.) |
| 22229 | CIWMB – Use of Multiple Mechanisms | Operator may use more than one financial mechanisms per disposal facility, the combination of which must provide financial assurance at least equal to the current coverage requirement. |
| 22230 | CIWMB – Use of Mechanism(s) for Multiple Facilities (New) | Operator may use one or more of the financial assurance mechanisms specified in Article 2 to provide financial assurance for more than one disposal facility. |
| 22231 | CIWMB – Cancellation or Nonrenewal by a Provider of Financial Assurance | Requirements for cancellation or nonrenewal of financial assurance mechanisms, including notice of termination by certified mail to operator and CIWMB, timing requirements, alternate financial assurance coverage. |
| 22232 | CIWMB – Bankruptcy or Other Incapacity of Operator or Provider of Financial Assurance | Requires notice by certified mail within 10 days of commencement of voluntary or involuntary proceeding by the provider of financial assurance and provision of alternate financial assurance within 60 days after receiving notice of the event. |
| 22233 | CIWMB – Record Keeping and Reporting | Requirements for maintenance of evidence of all financial assurance mechanisms, including an original or copy of each mechanism used to demonstrate financial responsibility, documentation of the estimated total permitted capacity of the solid waste landfill, specific requirements for each type of financial assurance mechanism, and annual written notice to the CIWMB of the number of claims paid and the total dollar amount paid as a result of any accidental occurrences at the disposal facility by 1 March for the previous year. |
| 22234 | CIWMB – Disbursements from Financial Mechanisms | CIWMB may authorize disbursements from financial mechanisms based on appropriate justification and documentation, sufficient funds remain to cover remaining costs of closure, post-closure, or corrective action, or to the RWQCB under specific circumstances such as failure to perform closure or post-closure maintenance. |
| 22235 | CIWMB – Release of Financial Assurance Requirements | CIWMB shall notify operator in writing that it is no longer required to demonstrate financial responsibility for closure or third party liability claims following receipt and approval of a certification of closure or completion of post-closure maintenance. Existing operator is responsible for financial assurance until new operator provides acceptable financial assurances to the CIWMB. |

Table 18, continued

| Section | Category | Brief Description |
|--|---------------------------------|--|
| 22236 | CIWMB – Annual Inflation Factor | Requires submittal by 1 June of each year of a report calculating increase in cost estimates for closure and/or post-closure maintenance and/or corrective action due to inflation factor derived from Implicit Price Deflator for Gross National Product published annually by the US, Department of Commerce in its Survey of Current Business by dividing latest annual published deflator by the deflator for the previous year. Operator shall increase monetary amount of the financial mechanism by this factor. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 3—Allowable Mechanisms Article 2—CIWMB—Financial Mechanisms | | |
| 22240 | CIWMB – Trust Fund | Trust agreement shall be worded as specified by and established by using Form CIWMB 100 (4/96) which is incorporated by reference. Operator may request release of excess funds if value is greater than required. |
| 22241 | CIWMB – Enterprise Fund | Requirements for enterprise funds include exclusive dedication of revenue or with exclusive first priority to financing closure and/or post-closure maintenance. |
| 22242 | CIWMB – Government Securities | Requirements for government securities include use of proceeds of sale of securities to pay costs of closure activities, post-closure maintenance, third party claims for bodily injury and property damage caused by accidental occurrences, corrective action activities; and remaining funds are inviolate against all other claims. |
| 22243 | CIWMB – Letter of Credit | Letter of credit shall be worded and completed as specified by form CIWMB 101 (4/96), which is incorporated by reference. Requirements include a letter from the operator with specified contents, letter of credit is irrevocable and issued for at least one year, with an automatic extension for at least one year, |
| 22244 | CIWMB – Surety Bond | Requirements for surety bonds include status of the surety company issuing a surety bond, specific CIWMB forms depending on what the form is guaranteeing, payments, and cancellation in the event of alternate assurance or the operator is no longer required to demonstrate financial responsibility. |
| 22245 | CIWMB – Pledge of Revenue | Consists of a resolution by the governing body of the operator or provider of financial assurance and the CIWMB to establish the pledge. Requirements include items to include in the agreement, types of revenue to be pledged, |
| 22246 | CIWMB – Financial Means Test | Specifies criteria for financial means test based on independently audited year-end financial statements for the latest completed fiscal year. Requirements for covering operating liability and post-closure maintenance include tangible net worth of at least \$10 million, specific rating for bond issuance, assets in US amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimate covered by the test, a letter completed as specified in form CIWMB 104 (4/96), an independent certified public accountant's report, a letter from an independent certified public accountant that contains required statements, and updated financial statements. |
| 22247 | CIWMB – Guarantee | Requirements for guarantor, who shall meet requirements of financial means test, and guarantee per form CIWMB 105 (4/96), including alternate coverage in the event of failure of financial means test or termination of guarantee. |

Table 18, continued

| Section | Category | Brief Description |
|---|---|---|
| 22248 | CIWMB – Closure and/or Post-Closure Maintenance and/or Reasonably Foreseeable Corrective Action Insurance | Requirements for issuer of insurance policy and coverage, including use of surplus lines broker, face amount equal to most recently approved closure and/or post-closure maintenance and/or reasonably foreseeable corrective action cost estimate, assignment to successor operators, evidence by a certificate of insurance established by using form CIWMB 106 (4/96). |
| 22249 | CIWMB – Local Government Financial Test | Requirements for local government agencies, including passing the local government financial test, demonstrating financial responsibility, amount that can be assured, financial ratios based on audited annual financial statements, public notice in the comprehensive annual financial report (CAFR), information to be disclosed, and reporting schedule and content, |
| 22249.5 | CIWMB – Local Government Guarantee | Requirements for guarantor and guarantee include conformance with form CIWMB 113 (7/98), alternatives for funding post-closure maintenance and/or corrective action, actions in the event the guarantee is cancelled, and rights to updated financial statements. |
| 22250 | CIWMB – Federal Certification | Requirements for federal entities responsible for closure and post-closure maintenance of landfill(s) in California that elect to provide a commitment to make a timely request for funds needed to complete closure and post-closure maintenance. |
| 22251 | CIWMB – Liability Insurance | Requirements for issuer and insurance policy, including evidence by a certificate using form CIWMB 107 (4/96) or amended and evidenced by endorsement using form CIWMB 109 (4/96). |
| 22252 | CIWMB – Self-insurance and Risk Management | Available to self-insured public entities that employ a risk manager and meet other requirements as demonstrated using form CIWMB 109 (4/96). |
| 22253 | CIWMB – Insurance and Environmental Fund | Available if requirements fulfilled before 2 July 1992, including a signed certification per form CIWMB 110 (4/96), certification of insurance coverage meeting certain limits, demonstration of establishment of an environmental liability fund before 2 July 1997 per form CIWMB 111 (4/96), and payment amounts and schedule |
| 22254 | CIWMB – State Approved Mechanism | Allows use of another mechanism that meets certain criteria (e.g., amount of funds cover costs assured when needed; mechanism is received before first waste is received at new facility; mechanism is legally valid, binding, and enforceable under State and Federal law) and is approved by the CIWMB. |
| Chapter 6—Financial Assurances at Solid Waste Facilities and at Waste Management Units for Solid Waste Subchapter 4—Financial Assurances Enforcement Procedures Article 1—Solid Waste Facilities | | |
| 22270 | Scope and Applicability | Applies to all operators of disposal facilities, except state and federal operators. |
| 22271 | Definitions | “Degree of non-compliance” is the operator’s status of compliance with the financial assurance requirements. “Potential for harm” is the degree to which operator’s actions adversely affect public health, safety, and the environment based on the anticipated closure date of the facility. |

Table 18, continued

| Section | Category | Brief Description |
|----------------|--|---|
| 22272 | Notice of Violation | Requirements for Notice of Violations (NOVs), including sending to respective enforcement agency and operator response within 10 working days of receipt of NOV. |
| 22273 | Issuance of Notice and Order and Stipulated Notice and Order | CIWMB will send in the event the operator fails to respond to the NOV within the specified timeframe. |
| 22274 | Compliance Options | Alternatives to penalties may include restrictions on current financial assurance mechanism(s) or prohibitions on use of current financial mechanisms. |
| 22275 | Penalty Calculations | Matrix sets forth levels for degree of non-compliance as a function of potential for harm, added to the economic benefit an operator receives from non-compliance with the regulations. Allows modification of penalty amounts based on reasons set forth herein. |
| 22276 | Processing and Collection of Civil Penalty | As provided in PRC Division 30, Part 5, Article 3, commencing with Section 45010.. |
| 22277 | Appeals Process | As provided in PRC sections 45017 and 45030. |
| 22278 | Continued or Recurring Violations | Describes circumstances under which CIWMB may re-initiate enforcement process or pursue action to revoke permit. |

Notes Pertaining to Table 18

¹ The term “tidal waves” includes tsunamis, seiches, and surge condition.

² Exemption from siting criteria does not release dischargers from the obligation to protect units from geologic or environmental hazards involved. Exemption is conditional on such protection.

³ Applicable regulations in this article may provide for exemptions to certain requirements.

⁴ All hydraulic conductivities specified in this table are maximum allowable values.

⁵ All Class II and Class III landfill that received MSW at any time and that received MSW after 9 October 1992 (MSW landfills) are subjected to the additional state and federal requirements contained (or incorporated by reference) in SWRCB Resolution No. 93-62.

⁶ Cutoff walls required where there is potential for lateral movement of fluid, including waste or leachate, and the hydraulic conductivity of natural geologic materials is used for waste containment. Cutoff walls shall be a minimum of 2 ft thick for clay or 40 mil for synthetic materials and keyed a minimum of 5 ft into natural geologic material.

⁷ The RWQCB establishes a water quality protection standard (WQPS) in the WDRs that consists of the list on constituents of concern, concentration limits, and the Points of Compliance and all Monitoring Points. The WQPS shall apply during the active life of the WMU, the closure period, the post-closure maintenance period, and during any compliance period (Section 20390, et seq.). General water quality monitoring and system requirements, including data analysis methods, are set forth in Section 20415.

Table 19: Policy for Regulation of Discharge of Municipal Solid Waste
(State Water Resources Control Board Resolution No. 93-62)

| Section | Description |
|-----------------|---|
| Whereas: | |
| 1 | SWRCB and RWQCBs are the state agencies with primary responsibility for coordination and control of water quality. |
| 2 | SWRCB is authorized to adopt State Policy for Water Quality Control that may contain "...principles and guidelines deemed essential by the state board for water quality control." |
| 3 | All State agencies shall comply with State Policy for Water Quality Control regarding any activities that could affect water quality. |
| 4 | RWQCBs regulate discharges of waste that could affect the quality of waters of the state, including discharges of solid waste to land, through the issuance of WDRs. |
| 5 | SWRCB is directed to classify wastes according to threat to water quality and to classify waste disposal sites according to ability to protect water quality. |
| 6 | The SWRCB promulgated regulations governing discharges of waste to land, including classification criteria for wastes and disposal sites and minimum standards for siting, design, construction, monitoring, and closure of waste management units. |
| 7 | The federal Solid Waste Disposal Act authorizes development of nationwide standards for disposal sites for MSW, including criteria for sanitary landfills. |
| 8 | 40 CFR Parts 257 and 258 apply to dischargers who own or operate landfills in California. |
| 9 | States are required to apply federal MSW regulations subject to approval by the USEPA. |
| 10 | The permitting authority in an "approved state" may approve engineered alternatives to certain prescriptive standards contained in the federal MSW regulations, provided that the alternative meets specified conditions and performance standards. |
| 11 | The SWRCB and the CIWMB submitted an application for program approval to the USEPA on 1 February 1993. |
| 12 | The USEPA has identified several areas of Chapter 15 that are not adequate to ensure compliance with certain provisions of federal MSW regulations, as summarized in Attachment I of this policy. |
| 13 | Not enough time before 9 October 1993, to amend Chapter 15 to ensure complete consistency with federal MSW regulations with USEPA approval. |
| 14 | Composite liners are needed; single clay liners will only delay onset of leachate leakage. |
| 15 | WDRs for many MSW landfills have not been revised to meet the most recent Chapter 15 amendments. |
| 16 | Adoption of this policy is categorically exempt from CEQA. |
| 17 | Public notice of the SWRCB's proposal to adopt a State Policy for Water Quality Control regarding Regulation of Discharges of MSW was conducted in 1993. |
| 18 | Reference - Water Code Sections 13142, 13160, 13163, 13172. |

Table 19, continued

| Section | Description |
|----------------------------------|--|
| Therefore Be It Resolved: | |
| I | <p>Implementation of the Chapter 15 and federal MSW regulations:</p> <ul style="list-style-type: none"> WDR revision - shall be conducted by each Regional Water Board to comply with Chapter 15 regulations and those applicable provisions of the federal MSW regulations, particularly those stipulated in Section III and identified in Attachment I of this Policy. RWQCB shall not rely on exemptions or alternatives allowed by Chapter 15 if they would not be allowed under federal MSW regulations, nor shall WDRs be waived for discharge of MSWLFs. RWQCB has the discretion to prescribe less stringent requirements for containment systems and water quality monitoring systems if the containment systems satisfy the performance standard for liners in the federal MSW regulations, the prerequisite for an exemption from groundwater monitoring in the federal MSW regulations is satisfied, and that either of the following two conditions is met: <ul style="list-style-type: none"> There is no aquifer underlying the facility property and it is not reasonably foreseeable that fluids migrating from the landfill could reach an aquifer or surface water body in the groundwater basin within which the landfill is located; or The groundwater in the basin underlying the facility has no beneficial uses and it is not reasonably foreseeable that fluids migrating from the landfill could reach an aquifer or surface water body having beneficial uses. |
| II | <p>Implementation Schedule:</p> <ul style="list-style-type: none"> MSW Landfills - 1993-95 deadlines for compliance with all applicable portions of the federal MSW regulations and Chapter 15. For proposed MSW landfills, full compliance with Chapter 15 and the federal MSW regulations shall be ensured before discharge of waste to that landfill. |
| III | <p>Containment - New or expanded MSW landfills shall meet the following additional liner and leachate collection system requirements:</p> <p>Standards for liners:</p> <ul style="list-style-type: none"> After the federal deadline, all containment systems shall include a "Prescriptive Design" composite liner that consists of an upper synthetic flexible membrane component (at least 40 mil thick or 60 mils if HDPE, installed in direct and uniform contact with the underlying compacted soil) and a lower component of soil (2 feet thick, $k = 1 \times 10^{-7}$ cm/s max) or an alternate design that meets criteria for an engineered alternative to the Prescriptive Design. New discharges to liners constructed before the federal deadline are allowed if the containment system includes a composite liner that contains a synthetic liner at least 40 mils thence (or at least 60 mils if HDPE) installed in direct and uniform contact with underlying materials and meets performance criteria in 40 CFR 258.40(a)(1) and (c). Containment systems installed where an engineering analysis shows that sideslopes are too steep to permit construction of a stable composite liner that meets the prescriptive standards above shall include an alternative liner that meets the performance criteria contained in 40 CFR 258.40(a)(1) and (c) and that is either a composite system with a 40 mil (or 60 mil HDPE) liner or not a composite system with a 60-mil (or 80 mil if HDPE) liner. <p>Standards for leachate collection:</p> <ul style="list-style-type: none"> Include a leachate collection and removal system which conveys to a sump all leachate that reaches the liner and that does not rely on unlined or clay-lined areas for such conveyance. Attachment I lists sections of federal MSW regulations that are more stringent than or do not exist in Chapter 15. |

Table 20: National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000001
(State Water Resources Control Board Water Quality Order No. 97-03-DWQ)

| Page | Description |
|-------------------|---|
| Fact Sheet | |
| II. | Types of Stormwater Discharges Covered by this General Permit |
| III. | Category 5. Landfills, land application sites, and open dumps that receive industrial waste |
| IV. | Inactive or closed landfills, land application sites, and open dumps that have received industrial wastes may be subject to this General Permit unless the stormwater discharges from the sites are already regulated by an NPDES permit issued by the appropriate RWQCB. Facility operators of closed landfills that are regulated by WDRs may be required to comply with this General Permit. In some cases, it may be appropriate for closed landfills to be covered by the SWRCB's General Permit during closure activities. New landfill construction should be covered by the Construction Activities General Permit. Facility operators should contact their RWQCB to determine the appropriate permit coverage. |
| V. | Types of Stormwater Discharges Not Covered by this General Permit |
| | Paragraph 2. Facilities that have NPDES permits containing stormwater provisions. When the individual or general NPDES permits for such discharges expire, the SWRCB or the RWQCB may authorize coverage under this General Permit or another general NPDES permit, or may issue a new individual NPDES permit consistent with the federal and state stormwater regulations. Interested parties may petition the SWRCB or appropriate RWQCB to issue individual or General NPDES permits. |
| VII. | Notification Requirements |
| | An NOI must be submitted by the facility operator for each individual facility to obtain coverage. Certification of the NOI signifies that the facility operator intends to comply with the provisions of the General Permit. |
| VIII. | Description of General Permit Conditions |
| | <u>Prohibitions</u> - Authorizes stormwater and authorized non-stormwater discharges from facilities that are required to be covered by a stormwater permit. Prohibits discharges of material other than stormwater that are not authorized by the General Permit and discharges containing hazardous substances in stormwater in excess of reportable quantities. |
| | <u>Effluent Limitations</u> - Must meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require control of pollutant discharges using best available technology (BAT) economically achievable and best conventional pollutant control technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards. Must comply with USEPA effluent limitation guidelines in 40 CFR Subchapter N. |
| | <u>Receiving Water Limitations</u> - Stormwater discharges shall not cause or contribute to a violation of an applicable water quality standard. |
| IX. | <u>Stormwater Pollution Prevention Plans (SWPPPs)</u> - All facility operators must prepare, retain on site, and implement an SWPPP, emphasizing BMPs. Facility operators must review existing SWPPPs for adequacy with regard to SWPPP requirements in this General Permit. The SWPPP must eliminate unauthorized non-stormwater discharges to the facility's storm drain system. |
| X. | <u>Monitoring Program</u> - Requires development and implementation of a monitoring program. Must visually observe stormwater discharges and collect and analyze samples for a required suite (pH, TSS, TOC, specific conductance, toxic chemicals, other pollutants likely to be present in stormwater discharges in significant quantities and parameters listed in Table D [Fe for landfills]). |

Table 20, continued

| Page | Description |
|---|---|
| XI. | <u>Alternative Monitoring</u> - Allows development of better, more cost-effective, facility-specific monitoring programs. |
| XII. | <u>Group Monitoring</u> - Allows individual or group sampling and analysis. |
| XIII. | <u>Retention of Records</u> - All monitoring information, copies of all reports required by this General Permit, and records of all data used to complete the NOI to be retained for a period of 5 years from the date of generation. |
| | <u>Watershed Management</u> - Allows individual facility operators or groups thereof to propose and participate in watershed management programs in lieu of some or all of the General Permit monitoring requirements. |
| | <u>Facility Operator Compliance Responsibilities</u> - This General Permit encourages facility operators to develop their own SWPPP and monitoring programs, which include various inspections, reviews, and observations that recognize, encourage, and mandate an iterative self-evaluation process that is necessary to consistently comply with this General Permit. |
| Waste Discharge Requirements (WDRs) for Discharges of Stormwater Associated with Industrial Activities Excluding Construction Activities | |
| 2 | SWRCB findings: |
| 3 | Paragraph 5. If an individual NPDES permit is issued to a facility operator otherwise subject to this General Permit or an alternative NPDES general permit is subsequently adopted which covers stormwater discharges and/or authorized non-stormwater discharges regulated by this General Permit, the applicability of this General Permit to such discharges is automatically terminated on the effective date of the individual NPDES permit or the date of approval for coverage under the subsequent NPDES general permit. |
| | Paragraph 6. Effluent limitations and toxic and effluent standards established in Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Clean Water Act, as amended, are applicable to stormwater discharges and authorized non-stormwater discharges regulated by this General Permit. |
| | Paragraph 8. Federal regulations (40 CFR Subchapter N) establish effluent limitations guidelines for stormwater discharges from some facilities in ten industrial categories. |
| 4 | Paragraph 11. Use BMPs where numeric effluent limitations are infeasible and BMPs meet BAT/BCT and water quality standards. |
| 5 | A. Discharge Prohibitions Paragraph 1. Non-stormwater discharges are prohibited; must be eliminated or permitted by a special NPDES permit. Paragraph 2. Stormwater discharges and authorized non-stormwater discharges shall not cause pollution, contamination, or nuisance. |
| | B. Effluent Limitations Paragraph 1. Stormwater discharges shall meet 40 CFR Subchapter N effluent limitations. Paragraph 2. No hazardous substance equal to or in excess of reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302. Paragraph 3. Must reduce or prevent pollutants in discharges through implementation of BAT for toxic and non-conventional pollutants and BCT for conventional pollutants. Development and implementation of an SWPPP constitutes compliance. |
| 6 | C. Receiving Water Limitations Paragraph 2. Discharges shall not cause or contribute to an exceedance of any applicable water |

Table 20, continued

| Page | Description |
|---|---|
| | <p>quality standards in a Surface Water Quality Control Plan (SWQCP) or Basin Plan.</p> <p>Paragraph 3. A facility operator is not in violation of 2. If BMPs are implemented, reported correctly, and incorporated into the SWPPP.</p> <p>Paragraph 4. Facility operator is in violation of General Permit if report described above is not filed within 60 days after exceedance of water quality standard, report is not approved by Regional Water Board, SWPPP and monitoring program are not revised as required.</p> |
| 7 | <p>D. Special Conditions</p> <p>Non-stormwater discharges (incl. groundwater, landscape watering, irrigation drainage) authorized by this General Permit must comply with RWQCB requirements, local agency ordinances and/or requirements, include BMPs in the SWPPP, not contain significant quantities of pollutants, quarterly visual observations, annual report and description. RWQCB may establish additional monitoring programs.</p> <p>E. Provisions</p> <p>Paragraph 1. Must submit an NOI or abbreviated NOI within 45 days of receipt.</p> <p>Paragraph 2. Must implement existing or develop SWPPP in accordance with Section A of this General Permit.</p> |
| 8 | <p>Paragraph 3. Must implement or develop Monitoring Program.</p> <p>Paragraph 5. Comply with lawful requirements of municipalities, counties, drainage districts, and other local agencies.</p> |
| 9 | <p>Paragraph 9. Request termination of coverage by filing a Notice of Determination and all documentation requested with the RWQCB.</p> |
| 10 | <p>F. Regional Water Board Authorities</p> <p>Paragraph 1. RWQCB shall implement the provisions of this General Permit and issue other NPDES permits as appropriate.</p> <p>Paragraph 2. RWQCB may provide guidance on SWPPP, Monitoring Program, and reporting implementation.</p> <p>Paragraph 3. RWQCB may require additional SWPPP and monitoring and reporting activities.</p> <p>Paragraph 4. RWQCB may approve a single NOI for co-located facilities.</p> |
| Section A: Stormwater Pollution Prevention Plan Requirements | |
| 13 | <p>Paragraph 2. Objectives</p> <p>Identify and evaluate sources of pollutants that may affect quality of stormwater discharges and authorized non-stormwater discharges from the facility</p> <p>Identify and implement BMPs to reduce and prevent pollutants. SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. The SWPPP shall contain a compliance activity schedule a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans.</p> <p>Paragraph 3. Planning and Organization</p> <p>Identify a stormwater pollution prevention team responsible for developing the SWPPP, assisting the manager in SWPPP implementation and revision, and conducting monitoring program activities required in Section B of this General Permit. Should review all local, state, federal requirements that impact, complement, or are consistent with the requirements of this General Permit, identify existing facility plans that contain stormwater pollutant control measures or relate to the requirements of this General Permit.</p> |
| 14 | <p>Paragraph 4. The SWPPP shall include a site maps or multiple site maps. Specific information to be</p> |

Table 20, continued

| Page | Description |
|---|---|
| | <p>included is listed on page 15.</p> <p>Table A - Five Phases for Developing and Implementing Industrial Stormwater Pollution Prevention Plans Planning and Organization, Assessment Phase, Best Management Practices Identification Phase, Implementation Phase, Evaluation/Monitoring</p> |
| 15 | <p>Paragraph 5. List of Significant Materials</p> <p>Locations where the material is stored, received, shipped, and handled, as well as typical quantities and frequency, shall be listed. Include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.</p> |
| 16, 17 | <p>Paragraph 6. Description of Potential Pollutant Sources</p> <p>Narrative description (guidelines given) for industrial processes, material handling and storage areas, dust and particulate generating activities, significant spills and leaks, non-stormwater discharges, soil erosion.</p> |
| 18 | <p>Paragraph 7. Assessment of Potential Pollutant Sources</p> <p>Description of industrial activities, potential pollutant sources, and areas of the facility that are likely sources of pollutants to stormwater and authorized non-stormwater discharges.</p> <p>Paragraph 8. Stormwater Best Management Practices</p> <p>Shall be described in the SWPPP, including non-structural BMPs (good housekeeping, preventative maintenance, spill response, material handling and storage, employee training, waste handling/ recycling, record keeping and internal reporting, erosion control and site stabilization, inspections, quality assurance) and structural BMPs (overhead coverage, retention ponds, control devices, secondary containment structures, treatment).</p> |
| 22, 23 | <p>Paragraph 9. Annual Site Compliance Evaluation</p> <p>Shall be conducted in each reporting period (1 July - 30 June), within 8-16 months of each other, revised as appropriate, and revisions implemented within 90 days of the evaluation. Evaluation to include review of all records, visual inspection of potential pollutant sources for evidence of pollutants entering the drainage system, review and evaluation of all BMPs, and an evaluation report (contents listed).</p> <p>Paragraph 10. SWPPP General Requirements</p> <p>To be retained on site and made available when requested by the Regional Board; Regional Board may notify facility operator that the SWPPP does not meet one or more of the minimum requirements of this Section; SWPPP shall be revised to reflect changes in industrial activities, shall be revised within 90 days after a facility operator determines that the SWPPP is in violation of any requirement of this General Permit, shall be revised to correct any part that is infeasible.</p> |
| Section B. Monitoring Program and Reporting Requirements | |
| 25 | <p>Paragraph 2. Objectives</p> <p>Ensure that stormwater discharges are in compliance with Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in the General Permit.</p> <p>Ensure practices to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges are evaluated and revised to meet changing conditions.</p> <p>Aid in implementation and revision of the SWPPP, and measure effectiveness of BMPs to prevent or reduce pollutants in stormwater discharges and authorized non-stormwater discharges. Info needed to develop monitoring program should be in SWPPP.</p> |

Table 20, continued

| Page | Description |
|------------|--|
| 26 | <p>Paragraph 3. Non-stormwater Discharge Visual Observations</p> <p>Requirements include: visual observation of all drainage areas for the presence of unauthorized non-stormwater discharges and authorized non-stormwater discharges and their sources; visual observations shall be made quarterly, during daylight hours, on days with no stormwater discharges, during scheduled facility operating hours. Quarterly in each of the following periods: Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec, within 6-18 weeks of each other. Document discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Record dates, locations, observations, responses to eliminate unauthorized non-stormwater discharges and reduce or prevent pollutants from contacting non-stormwater discharges.</p> |
| 27, 28 | <p>Paragraph 4. Stormwater Discharge Visual Observations</p> <p>From one storm event per month during the wet season (1 Oct - 30 May) during the first hour of discharge and at all discharge locations. Visual observations of stored or released stormwater shall occur at the time of release. Required during daylight hours preceded by at least 3 working days without stormwater discharges that occur during scheduled facility operating hours. Document floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Record dates, locations observed, observations, response taken to reduce or prevent pollutants in stormwater discharges.</p> |
| | <p>Paragraph 5. Sampling and Analysis</p> <p>Collect stormwater samples during the first hour of discharge from (1) the first storm event of the wet season, and (2) at least one other storm event in the wet season. Stored or contained stormwater shall be sampled at the time it is released. Facility operators who do not collect samples from the first storm event shall collect samples from two other storm events of the wet season and explain in the Annual Report why the first storm event was not sampled. Only required during scheduled facility operating hours preceded by at least 3 working days without stormwater discharge. Analyze samples for TSS, pH, specific conductance, TOC, O&G (instead of TOC); toxic chemicals and other pollutants likely to be present in significant quantities (may stop analyzing after two consecutive sampling events where they are not detected in significant quantities), other analytical parameters depending on SIC (i.e., Fe for landfills).</p> |
| 29 | <p>Paragraph 6. Facilities Subject to Federal Stormwater Effluent Limitation Guidelines</p> <p>Must meet additional requirements for sampling and analysis and calculation or estimate of stormwater volume and pollutant mass</p> |
| | <p>Paragraph 7. Sample Stormwater Discharge Locations</p> <p>Qualitative requirements for locations, commingled discharges, options for identical discharges and BMPs in two or more drainage areas.</p> |
| 30 | <p>Paragraph 8. Visual Observation and Sample Collection Exceptions</p> <p>Dangerous weather conditions, daylight hours only, more than one hour after discharge begins.</p> |
| | <p>Paragraph 9. Alternative Monitoring Procedures</p> <p>May be proposed.</p> |
| 31 | <p>Paragraph 10. Monitoring Methods</p> <p>Requires explanation of how the facility's monitoring program satisfy the monitoring program objectives, sampling and preservation in accordance with "Standard Methods for the Examination of Water and Wastewater," calibration and maintenance of monitoring instruments in accordance with manufacturers' specifications, laboratory analyses in accordance with 40 CFR Part 136.</p> |
| 32, 33, 34 | <p>Paragraph 12. Sampling and Analysis Exemptions and Reductions</p> <p>Gives exemption requirements for No Exposure Certification (all inside work), RWQCB Programs, Local Agency Certifications, and sampling and analysis reduction requirements.</p> |

Table 20, continued

| Page | Description |
|---------------------------------------|--|
| 35 | <p>Paragraph 13. Records</p> <p>Retain records of following for at least 5 years: date, place, and time of inspections, sampling, visual observations, measurements; individuals who performed the site inspections, sampling, visual observations, and/or measurements; flow measurements or estimates; date and time of analyses, individuals who performed analyses; analytical results, method detection limits, techniques or methods used; QA/QC records and results; non-stormwater discharge inspections and visual observations and stormwater discharge visual observation records; visual observation and sample collection exception records; calibration and maintenance records of on-site instruments used; exemption and reduction certifications and supporting documentation; corrective actions and follow-up activities.</p> |
| 36 | <p>Paragraph 14. Annual Report</p> <p>Requirements for Annual Report due by 1 July of each year to the Executive Officer of the RWQCB responsible for the area in which the facility is located and to the local agency (if requested).</p> <p>Paragraph 15. Group Monitoring</p> <p>Gives requirements, including a site-specific SWPPP and monitoring program in accordance with the General Permit, a group monitoring plan (GMP), sample collection and analysis, designation of a group leader and responsibilities, and conditions for sampling credits.</p> |
| 40, 41 | <p>Paragraph 16. Watershed Monitoring Option</p> <p>May be approved if found to comply with requirements of General Permit.</p> |
| 42 | <p>Table D - Additional Analytical Parameters</p> <p>Sector L. Landfills and Land Application Sites - TSS and Fe</p> |
| Section C: Standard Provisions | |
| 47 | <p>Paragraph 1. Duty to Comply - Facility operator must comply with all conditions of this General Permit and effluent standards or prohibitions under 307(a) of the CWA</p> <p>Paragraph 2. General Permit Actions - If any toxic effluent standard or prohibition is promulgated under Section 307(a) of the CWA for a toxic pollutant present in the discharge and that standard is more stringent than in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition, and the facility operator so notified.</p> <p>Paragraph 3. Need to Halt or Reduce Activity not a Defense - for not maintaining compliance with conditions of this General Permit.</p> <p>Paragraph 4. Duty to Mitigate - Facility operator's duty to prevent any discharge in violation of this General Permit that has a reasonable likelihood of adversely affecting human health or the environment.</p> |
| 48 | <p>Paragraph 5. Proper Operation and Maintenance - Required to comply with this General Permit and with the SWPPPs.</p> <p>Paragraph 6. Property Rights - not conveyed by this General Permit.</p> <p>Paragraph 7. Duty to Provide Information - To RWQCB, SWRCB, USEPA, or local stormwater management agency.</p> <p>Paragraph 8. Inspection and Entry - Allowed to RWQCB, SWRCB, USEPA, or local stormwater management agency.</p> |
| 49 | <p>Paragraph 9. Signatory Requirements.</p> |

Table 20, continued

| Page | Description |
|--------------------|---|
| 50 | <p>Paragraph 10. Certification - Specific language required by people signing under Provision 9.</p> <p>Paragraph 11. Reporting Requirements - For planned changes, anticipated noncompliance, compliance schedules, noncompliance reporting.</p> |
| 51 | <p>Paragraph 12. Oil and Hazardous Substance Liability - General Permit does not relieve from requirements of Section 311 of the CWA.</p> <p>Paragraph 13. Severability.</p> <p>Paragraph 14. Reopener Clause.</p> <p>Paragraph 15. Penalties for Violations of General Permit Conditions - Cites relevant portions of the CWA that describe penalties.</p> <p>Paragraph 16. Availability - A copy of this General Permit shall be maintained at the facility and available to appropriate personnel.</p> <p>Paragraph 17. Transfers - This General Permit is not transferable from one facility operator or location to another.</p> <p>Paragraph 18. Continuation of Expired General Permit - Continues in force and effect until a new general permit is issued.</p> <p>Paragraph 19. Penalties for Falsification of Reports - Cites Section 309(c)(4) of the CWA.</p> |
| Attachments | |
| | Attachment 1 - FACILITIES COVERED BY THIS GENERAL PERMIT |
| | Paragraph 5. Landfills, Land Application Sites, and Open Dumps : Sites that receive or have received industrial waste from any of the facilities covered by this General Permit, sites subject to regulation under Subtitle D of RCRA, and sites that have accepted wastes from construction activities (construction activities include any clearing, grading, or excavation that results in disturbance of five acres or more.) |
| | Attachment 2 - Stormwater Contacts for the SWRCB and RWQCBs - cites a website. |
| | Attachment 3 - Notice of Intent (NOI) Instructions. |
| | Attachment 4 - Definitions. |
| | Attachment 5 - Acronym List. |

Appendix D

Summary of City and County Requirements

Table 21: List of Selected Conditional Use Permits Reviewed

| SWIS No. | Site | Permit No. | Issuer | Issuance Date |
|-----------------|--|-------------------|---|-----------------------------|
| 07-AA-0032 | Keller Canyon Landfill | 2020-89 | Contra Costa Co. Board of Supervisors | 01-Nov-94(amended) |
| 08-AA-0006 | Crescent City Landfill | None | Land is zoned for landfill use (public facility - PF), CUP to be issued for closure activities. | |
| 10-AA-0009 | American Avenue Disposal Site | 2804 | Fresno Co. Planning Commission | 18-Nov-99 (hearing date) |
| 14-AA-0007 | Tecopa Disposal Site | None | Consistent with surrounding land use - zoned OS-40 | |
| 19-AA-0853 | Sunshine Canyon Sanitary Landfill County Extension | 86-312 | Co. of Los Angeles Board of Supervisors | 21-Oct-93 (hearing date) |
| 31-AA-0560 | Eastern Regional Landfill | 68-89 | Placer County Planning Department | 09-Jul-71 |
| 32-AA-0008 | Gopher Hill Landfill | 1022 | US Dept. of Agriculture, Forest Service | 28-Jul-83 |
| 39-AA-0015 | Forward, Inc. Landfill | UP-91-12 | San Joaquin Co. Community Development Dept. | 31-Jan-99 (revised) |
| 40-AA-0001 | City of Paso Robles Landfill | None | | |
| 45-AA-0020 | Anderson Landfill | 00-24 | Shasta Co. Planning Commission | |

Table 22: Comparison of Reviewed Conditional Use Permits

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|----------------------------|--|--------------------------|--|-----------------------------|--|----------------------|-------------------|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Design Standards | 3.1 Meet SWRCB requirements for a Class II landfill. | | 8. Must comply with all federal, state, and local laws, regulations, and ordinances. | | 26. Must take reasonable precautions to prevent pollution. | | |
| Waste Origin | 5.1 Within Contra Costa County only. Note: The Franchise Agreement was changed in 1994 to allow acceptance of out of County waste. | | | | | | |
| Waste Type | 6.1-6.4 Wastes approved for SWRCB Class II landfills. | | 10. Class III non-hazardous. | | | | |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|-------------------------|--|----------------------------|---|---------------------|--|---|--|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Restricted Waste | 6.4 Hazardous, toxic, radioactive, liquid. | | 10a. Incinerator ash, sludge, radioactive, and untreated medical wastes. | | 22. Excludes waste that result in substantial harm to fish, wildlife, or human water supply. | | 35. Shredder waste (unless SWFP is revised). 37. Hazardous waste. |
| Load Inspection | 7.2 Screen for restricted wastes and spot check for covered loads. | | 26. Must implement load checking program. IB Requires full-time load checker onsite. | | | A1. Check all documents before permitting entrance. | 43. Screen TiO ₂ loads for radioactivity. 45. Develop written load checking program. |
| Waste Flow | 9.3 Maximum 3,500 tons/day. | B. Maximum 3,600 tons/day. | 10e. Maximum 36,000 tons/week. 10f. Maximum 6,600 tons/day. | | | 1.(1) A. Maximum 6,080 tons/day. | |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|------------------------|--|------------------|---|---------------------|-------------|--|---|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Buffer Zone | 9.4 Minimum 2000 feet between waste and nearest residence on Jacqueline Drive. | | 15. Requires land dedications for open space, park and recreational use. 23. Maximum disturbed area specified as a map in Exhibit "A". | | | | 34. Minimum 2500-ft zone on the southern property boundary. |
| Slope Stability | 16.1- 16.12 Designed for a MCE with PGA = 0.65g. | | 23, 28. Must comply with grading standards of the LA Co. DPW. | | | | |
| Liner System | 17.2-17.3 Satisfy SWRCB Class II WMU Requirements (24" clay overlain by geo-membrane). | | 29. Defers to the RWQCB Requirements and Draft EIR. | | | B8., C4. No liners may be built over the existing landfill without sufficient engineering studies. | |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|-------------------------------------|--|------------------|---|---------------------|-------------|---|--|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| LCRS/Leachate Management | 17.3, 17.10, 17.12, 17.16 Double Containment of leachate storage tanks. Must hold 1.5 times the volume in secondary containment. Tanks must be chemically compatible with leachate. | | 29. Install and maintain LCRS per RWQCB requirements and meet or exceed certain specifications in Draft EIR. | | | | |
| Groundwater Monitoring | 17.5 - 17.7 Defers to RWQCB requirements. | | 30. Defers to RWQCB requirements. | | | 2.e. Defers to RWQCB for a approval of plan. B5. Requires monitoring of groundwater elevations within 24 hours of a MMI V earthquake. C5. requires monitoring of domestic wells within 500 feet of the landfill | 38. Install 4 lysimeters in Expansion Area A. |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|-------------------------------------|--|------------------|---|---------------------|---|--|---|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Surface Water Control | 17.9 Divert surface run-off to limit infiltration. | | 28. Defers to DPW and RWQCB requirements , requires diversion of surface water run-on. | | | C2. Anchor trenches elevated 2 to 3 feet to limit run-on. | 8. Drainage facilities shall be constructed to Shasta Co. Standards. |
| Surface Water Protection | 18.2 Design for 1,000 yr, 24 hr storm. | | | | 22. Locate materials capable of polluting water so as to prevent substantial harm to fish, wildlife, or human water supply. | | 52. Design for the 100 year, 24 hr storm. 55. Design a contact-water drainage collection pond for Expansion Area A. |
| Erosion/Sediment Control | 18.4 Limit grading to April-October, ground cover within 90 days of grading, ditches shall be lined over landfill. Downstream discharge shall not exceed the 25-yr, 24-hr storm. | | 17. Temporary vegetative cover with compatible species on areas inactive for more than 180 days. 29. Comply with drainage and grading requirements of the LA Co. DPW | | 27. Must provide preventative measures to prevent and control soil erosion and gullyng. | 1.I. Temporary plantings, geosynthetics, and erosion control to be constructed as needed. B2. Completed areas to be planted with drought tolerant grasses. C1. Slopes, ridgetops, and peripheral areas shall be revegetated. | 49. Install drainage ditches, erosion control features, seeding, winter roads and tipping pads, and clean ponds prior to winter season. |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|-------------------------------------|---|---|---|--------------------------------|-------------|--|---|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Surface Water Monitoring | 18.5 Requires monitoring to be approved by the EA, RWQCB, and Community Dev. Dept. | | | | | C3. No monitoring required. | |
| Working Face | 20.2 Maximum size of 3 acres. | p. B5. Minimize activity areas. | 18b. Maximum 2 to 3 acres. | p3. 50-ft wide trench fill. | | | 26. Minimize working area. |
| Cover Frequency | 20.3 Defers to RWQCB requirements. | p. C3 6 in. of daily cover soil. | | p4. Daily soil cover. | | | |
| Odor Control | 20.2 Defers to BAAQMD requirements | | 36. Defers to SCAQMD requirements. | | | | |
| Dust Control | 20.5 Apply water at least twice daily to roads and working face. | p. B3, p. C6 Water, chemical stabilizer or vegetation on disturbed areas and unpaved roads. | 18 c.-f. and 18 j. Use of water and sealants for dust control on dirt roads, daily cover, stockpiles and active areas. | | | 1.e. Driveways and maneuvering areas shall be paved. 1.f., D3. Temporary roads (>6 months) shall be chip-sealed. A11. Loads of ash to be covered. D1. Water applied twice daily to active faces and roads. | 4. Permanent access roads shall be maintained in a dust-free condition. 26. Minimize working area, compact cover soil, wet soil, and plant grasses to minimize dust. |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|-----------------------|--|--|--|---|--|--|--|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Air Quality | 20.1 Prevent air quality deterioration in the vicinity of site or Bay Area. | p. B5 Defers to SJVUAPCD Rules 4642, 2201, and 2520. | 36. Defers to SCAQMD requirements. | 6. Defers to Placer County APCD. Prohibits burning. | 34. Prohibition of burning. | 5.a. Defers to Rule 2010, 4105, 4651, and 4002 by SJVUAPCD. | 25. Equipment to be maintained to meet emission standards. |
| Air Monitoring | 20.7, 20.14 Defers to BAAQMD requirements. | | 36. Defers to SCAQMD requirements. | | | | 27. Verify methane concentrations in on-site structures is less than 1.25% in air. 29. Monitor for suspended particulates at the landfill boundary. |
| Revegetation | 20.9, 20.10. Immediate revegetation of completed landfill areas. Plant trees and shrubs downwind of landfill to trap dust. | | 16. Final fill slopes shall be revegetated. 17. Temporary vegetative cover with compatible species on areas inactive for more than 180 days. 24. Upper ridge to be planted with native tree species. | 5. Revegetate all cuts and fills. | 24, 25. Disturbed areas to be planted with grasses or other suitable vegetation. Plant species to be approved by USFS. | 1.g., B2., D2. Completed areas to be planted with drought tolerant grasses. C1. Slopes, ridgetops, and peripheral areas shall be revegetated. | 20., 21., 22., 23. Disturbed areas to be seeded with native species prior to the winter season. Closed areas to be revegetated with oak and pine. |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|---------------------------------------|--|---|--|--|-------------|------------------|---|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Gas Control and Collection | 20.11-20.13 Defers to BAAQMD requirements for gas control, and collection system. Requires nonilluminous flare with staged combustion. | | 34. Defers to SCAQMD requirements. Must provide control of subsurface landfill gas migration to the satisfaction of the LA Co. DPW and the SCAQMD. | | | | |
| Lateral Gas Barriers | 20.15 Requires barrier or collection area on side slopes. | | | | | | |
| Landfill Gas Monitoring | 20.17 Test gas constituents per BAAQMD requirements. | | | | | | 32. Requires installation of perimeter LFG probes. |
| Access Road | 20.21 Primary access road must be paved. | p. B4. Access road must be paved. | 18g. Access roads to permanent facilities shall be paved. | 4. Meet MR-3 road standard with 12-ft lanes and maximum 2:1 side slope cuts and fills. | | | |
| Speed Limit | 20.23. 20 mph. | p. B4. 15mph on unpaved roads. | | | | 1.j., D4. 15 mph | |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|--------------------------|---|------------------|---|-------------------------------------|-------------|--|---|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Biotic Protection | 23.1 No net loss of significant habitat, wetland, woodland, or agricultural production. | | 38. Repair of riparian habitat at a 2:1 ratio for areas disturbed. 43, 46. Replanting of oak trees at a 2:1 ratio and doug-fir trees at a 5:1 ratio for each tree removed. | | | | |
| Litter Control | 25.1, 25.5, 25.6, 25.7, 25.8 Confine litter to working face. Install litter fences. Daily on-site litter removal. Weekly off-site litter removal. | | 19a-e. Continuous patrol for onsite litter. Accumulated litter to be removed immediately. Litter fences to be installed. | | | 1.l. Off-site and on-site litter to be collected daily. Litter fence to be provided. | 65. Collect litter along West Anderson Drive and Cambridge Road at a minimum of once per month. |
| Closure | 33.1 Defers to State law. | | | p4. Requires 3-ft soil final cover. | | | |
| Post-Closure Use | 33.5 Grazing. | | | | | | |

Table 22, continued

| SWIS No. | 07-AA-0032 | 10-AA-0009 | 19-AA-0853 | 31-AA-0560 | 32-AA-0008 | 39-AA-0015 | 45-AA-0020 |
|--------------------|------------------|------------------|--|---------------------|--|---|------------|
| Condition/ Name | Keller Canyon | American Ave. | Sunshine | Eastern Regional | Gopher Hill | Forward, Inc. | Anderson |
| Other/General | | | <p>8. Requires compliance with all applicable laws, statutes, ordinances, and regulations.</p> <p>10j,k,m. Assist in meeting diversion mandates.</p> <p>MP Part I. Install Survey Control. Conduct landfill surveys on a biannual basis and post-earthquake</p> <p>MP Part III. Maintain an on-site inspector.</p> <p>27, 32. Meet Industrial waste control and underground storage tank requirements.</p> | | <p>7. Shall comply with all federal, state, county, and municipal laws, ordinances, or regulations which are applicable.</p> <p>34. Requires compliance with referenced operation plan (not available) for operations, drainage, construction, compaction, and depth of earth cover.</p> | <p>A7., A8. Provisions and concentration limits regarding aeration of chlorinated hydrocarbon-contaminated soil.</p> <p>D8., D9., D10. Provisions for storage of VOC-contaminated soil and provisions for collection, and removal of excess VOCs.</p> | |

Appendix E

Abbreviations and Symbols

Table 23: Abbreviations and Symbols

| Abbreviation/ Symbol | Definition |
|---------------------------------|---|
| APCD | Air Pollution Control District |
| APCO | Air Pollution Control Officer |
| Apr | April |
| AQMD | Air Quality Management District |
| BAAQMD | Bay Area Air Quality Management District |
| BACT | best available control technology |
| BARCT | best available retrofit control technology |
| BAT | best available technology |
| BCT | best control technology |
| bhp | brake horsepower |
| BMP | best management practices |
| BOD | biological oxygen demand |
| BPT | best practicable technology |
| CA | California |
| CAFR | comprehensive annual financial report |
| CAP | corrective action program |
| CCR | California Code of Regulations |
| CEG | certified engineering geologist |
| CEMS | continuous emissions monitoring system |
| CEQA | California Environmental Quality Act |
| CESQG | conditionally exempt small quantity generator |
| CFR | Code of Federal Regulations |
| CIWMB | California Integrated Waste Management Board |
| cm | centimeter |
| CO | carbon monoxide |
| Co. | county |
| COC | constituents of concern |
| COD | chemical oxygen demand |
| CQA | construction quality assurance |
| CUP | conditional use permit |
| CWA | Clean Water Act |
| Dec. | December |
| Dept. | department |
| DMP | detection monitoring program |
| DPW | Department of Public Works |
| dscf | dry standard cubic feet |

Table 23, continued

| | |
|------------------|--|
| DTSC | Department of Toxic Substances Control |
| e.g. | <i>exemplia grata</i> (for example) |
| EA | enforcement agency |
| EFF | efficiency |
| EIR | environmental impact report |
| EMP | evaluation monitoring program |
| et seq. | <i>et sequens</i> |
| etc. | <i>et cetera</i> |
| FAA | Federal Aviation Administration |
| Fe | iron |
| ft | foot |
| g | gram |
| GC/MS | gas chromatography/ mass spectroscopy |
| GJ | gigajoule |
| GMP | group monitoring plan |
| H&SC | Health and Safety Code |
| H ₂ S | hydrogen sulfide |
| HDPE | high-density polyethylene |
| hp | Horsepower |
| hr | Hour |
| i.e. | <i>id est</i> (in other words) |
| IC | internal combustion |
| incl. | including |
| Jan | January |
| JTD | joint technical document |
| Jul | July |
| Jun | June |
| k | hydraulic conductivity |
| kg | kilogram |
| LA | Los Angeles |
| lb | pound |
| LCRS | leachate collection and removal system |
| LEL | lower explosive limit |
| LFG | landfill gas |
| LOI | loss of ignition |
| LPG | liquefied petroleum gas |
| m | meter |
| Mar | March |
| max. | maximum |

Table 23, continued

| | |
|---------|---|
| MCE | maximum credible earthquake |
| MCL | maximum concentration limit |
| min. | minimum |
| MMI | Modified Mercalli intensity |
| MOU | memoranda of understanding |
| MP | monitoring program |
| MPE | maximum probable earthquake |
| mph | miles per hour |
| MSGP | multi-sector general permit |
| MSW | municipal solid waste |
| MSWLF | municipal solid waste landfill |
| MW | megawatt |
| NAAQS | national ambient air quality standards |
| NMOC | non-methane organic compounds |
| No. | number |
| NOI | notice of intent |
| NOx | oxides of nitrogen |
| NPDES | National Pollution Discharge Elimination System |
| NSR | new source review |
| O&G | oil and grease |
| O&M | operations and maintenance |
| Oct | October |
| p. | page |
| P.O. | post office |
| PCB | polychlorinated biphenyl |
| PE | professional engineer |
| PGA | peak ground acceleration |
| PM | particulate matter |
| POTW | publicly operated treatment works |
| ppd | pounds per day |
| ppm | parts per million |
| ppmv | parts per million by volume |
| PRC | Public Resources Code |
| precip. | precipitation |
| prelim. | preliminary |
| PSD | prevention of significant deterioration |
| PTO | permit to operate |
| QA/QC | quality assurance/quality control |
| RACT | reasonable available control technology |

Table 23, continued

| | |
|------------------|---|
| RCE | registered civil engineer |
| RCRA | Resource Conservation and Recovery Act |
| RDSI | report of disposal site information |
| RFI | report of facility information |
| ROWD | report of waste discharge |
| RWQCB | regional water quality control board |
| s | second |
| SCAQMD | South Coast Air Quality Management District |
| SCR | selective catalytic reduction |
| Sep | September |
| SIC | standard industrial classification |
| SIP | state implementation plan |
| SJVUAPCD | San Joaquin Valley Unified Air Pollution Control District |
| SO _x | sulfur oxides |
| SWDF | solid waste disposal facility |
| SWFP | solid waste facility permit |
| SWPPP | stormwater pollution prevention plan |
| SWRCB | State Water Resources Control Board |
| TAC | toxic air contaminant |
| TDS | total dissolved solids |
| TiO ₂ | titanium oxide |
| TKN | total Kjeldahl nitrogen |
| TOC | total organic compounds |
| tpy | tons per year |
| TSS | total suspended solids |
| US | United States |
| USEPA | United States Environmental Protection Agency |
| USFS | United States Forest Service |
| VOC | volatile organic compound |
| vol. | volume |
| WDR | waste discharge requirements |
| WET | waste extraction test |
| WMU | waste management unit |
| wt. | weight |
| yr | year |
| μg | micrograms |